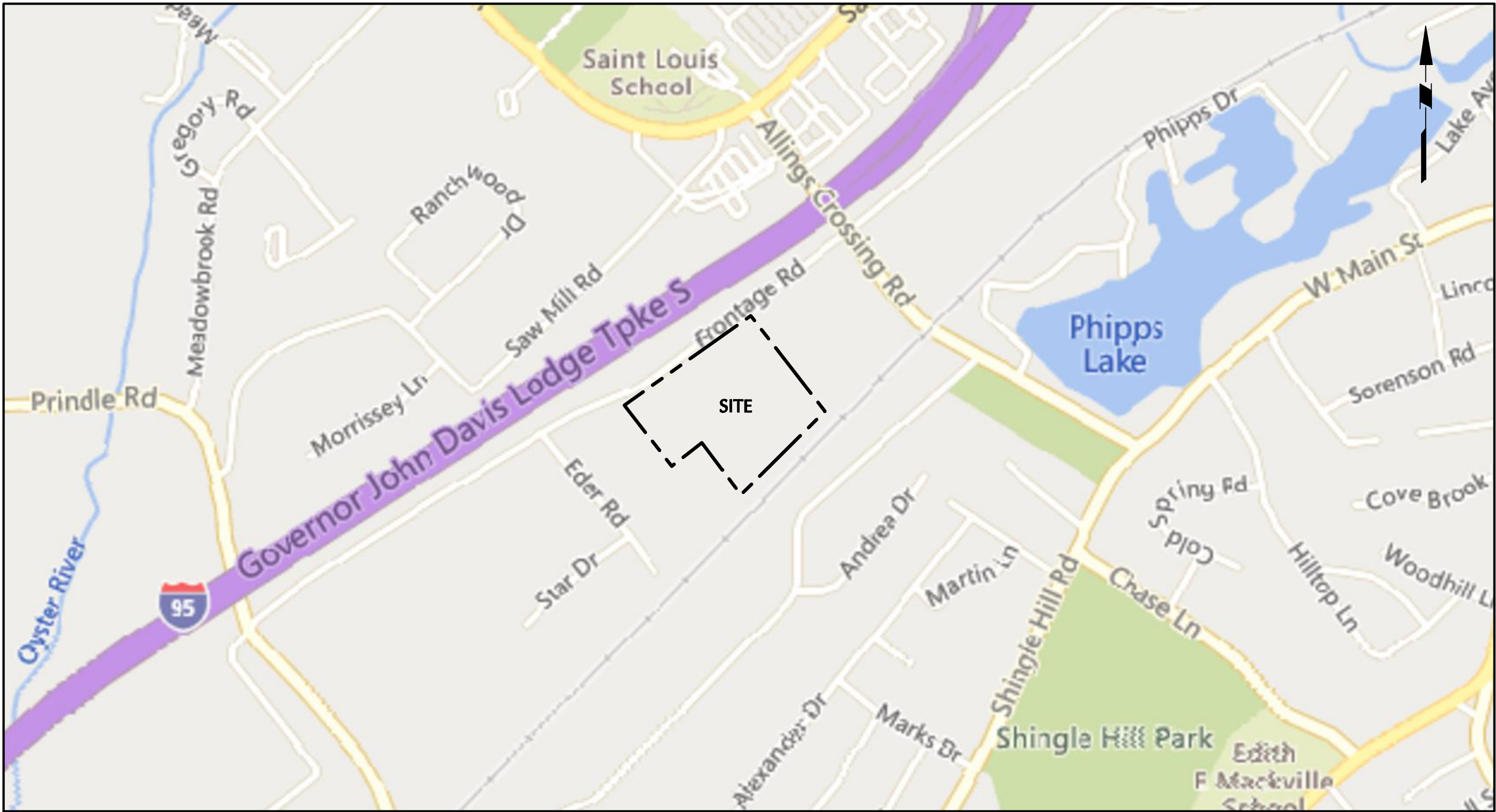


MACDERMID ALPHA NEW PROCESS BUILDING

350 FRONTAGE ROAD
WEST HAVEN, CONNECTICUT 06516
PLANNING & ZONING COMMISSION APPLICATION
INLAND WETLAND WATERCOURSE AGENCY APPLICATION
SEPTEMBER 24, 2025



LOCATION MAP
SCALE 1"=500'
500 0 250 500
SCALE IN FEET

DRAWING LIST

NUMBER	TITLE	DATE	REVISION
VB101	COVER SHEET	09/24/2025	
VB102	BOUNDARY AND TOPOGRAPHIC SURVEY	07/09/2021	09/22/2025
CS100	BOUNDARY AND TOPOGRAPHIC SURVEY	07/09/2021	09/22/2025
CS101	OVERALL SITE PLAN	09/22/2025	09/24/2025
CS501	SITE PLAN	09/22/2025	
CG101	SITE DETAILS	09/22/2025	
CG501	GRADING & DRAINAGE PLAN	09/22/2025	
CG502	GRADING & DRAINAGE DETAILS I	09/22/2025	
CU101	GRADING & DRAINAGE DETAILS II	09/22/2025	
CU501	SITE UTILITY PLAN	09/22/2025	
CE101	SITE UTILITY DETAILS	09/22/2025	
CE501	SOIL EROSION & SEDIMENT CONTROL PLAN	09/22/2025	
LL101	SOIL EROSION & SEDIMENT CONTROL DETAILS	09/22/2025	
LL501	SITE LIGHTING PLAN	09/22/2025	
LP101	SITE LIGHTING DETAILS	09/22/2025	
A111	WETLAND MITIGATION PLAN	09/09/2025	09/19/2025
A202	FLOOR PLAN	09/09/2025	09/19/2025
	ELEVATION PLAN		

RELEASE DATES

DATE	ISSUED FOR
09/22/2025	INLAND WETLANDS AND WATERCOURSES APPLICATION
09/24/2025	PLANNING & ZONING APPLICATION

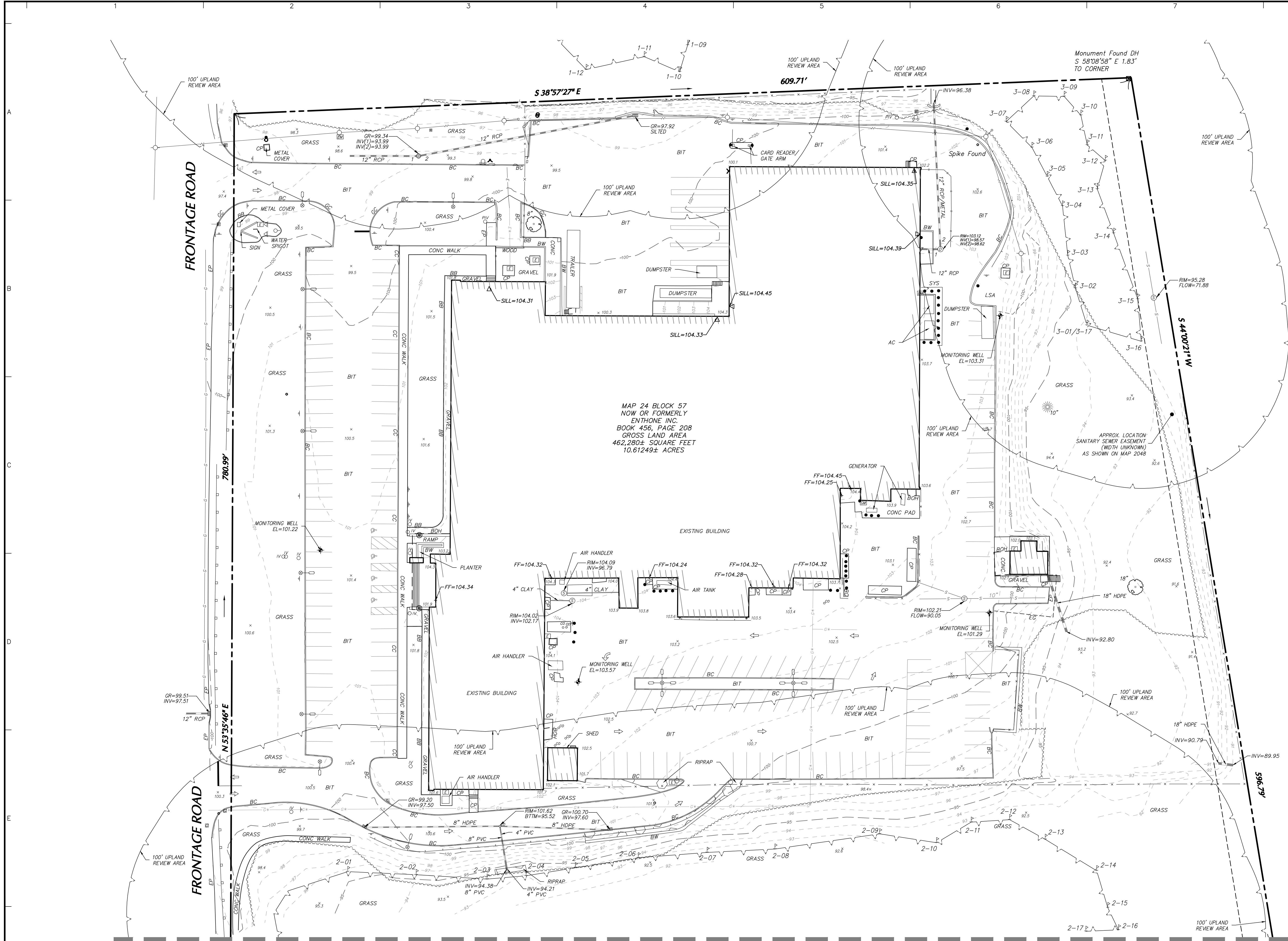
CIVIL ENGINEER/
LANDSCAPE ARCHITECT/SURVEYOR
LANGAN CT, INC.
LONG WHARF MARITIME CENTER
555 LONG WHARF DRIVE
NEW HAVEN, CT 06511
(203) 562-5771

ARCHITECT
ITAC
13141 N. ENON CHURCH RD.
CHESTER, VA 23836
(800) 400-2420

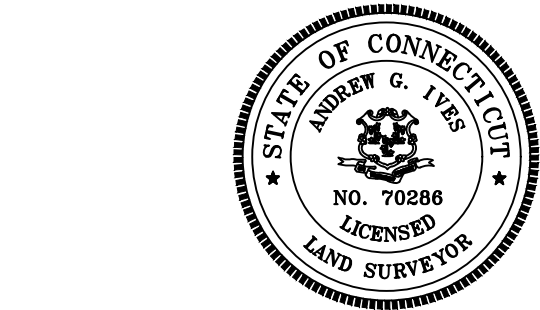
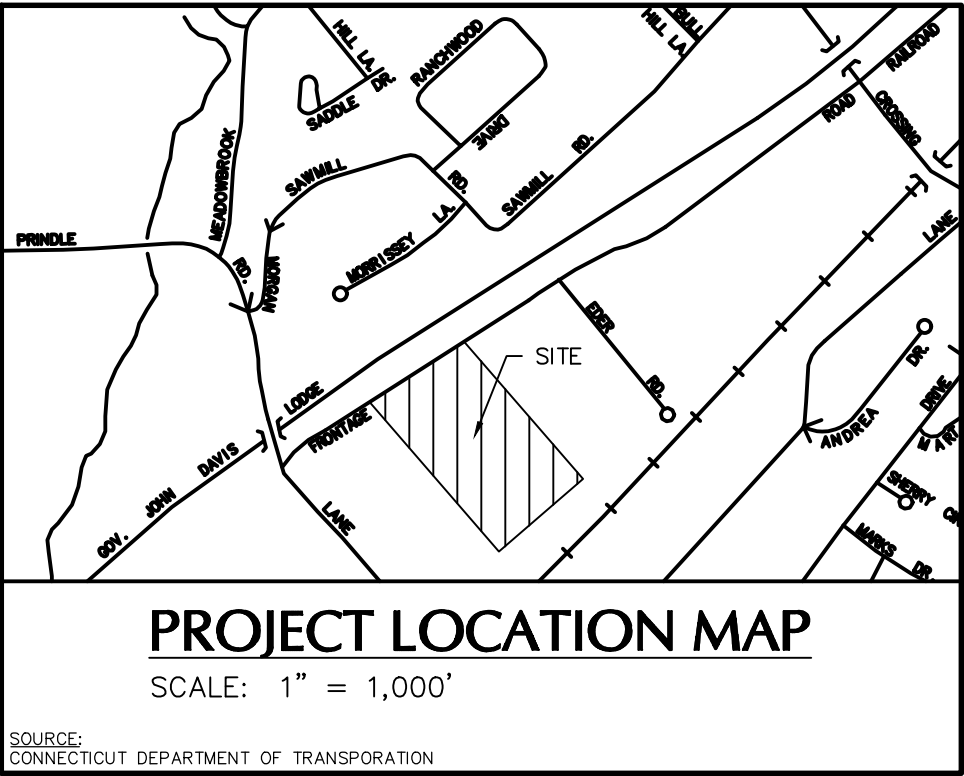
WETLANDS CONSULTANT
ALL-POINTS TECHNOLOGY CORP.
567 VAUXHALL STREET EXTENSION
SUITE 311
WATERFORD, CT 06385
(860) 663-1697

OWNER/ APPLICANT
MACDERMID ALPHA
350 FRONTAGE ROAD
WEST HAVEN, CT 06516
(203) 932-8623

LANGAN



MATCHLINE A (SEE SHEET VB102)



09/22/2025	UPDATED WETLANDS	1
Date	Description	No.

REVISIONS

"TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON."

ANDREW G. IVES DATE SIGNED
PROFESSIONAL LAND SURVEYOR
CT STATE LIC. NO. 70286

LANGAN

Langan CT, Inc.
555 Long Wharf Drive
New Haven, CT 06511

T: 203.562.5771 F: 203.789.6142 www.langan.com

Project

PROJECT RENO

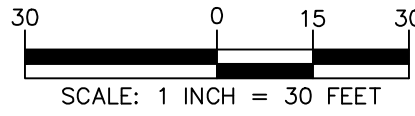
350 FRONTAGE ROAD

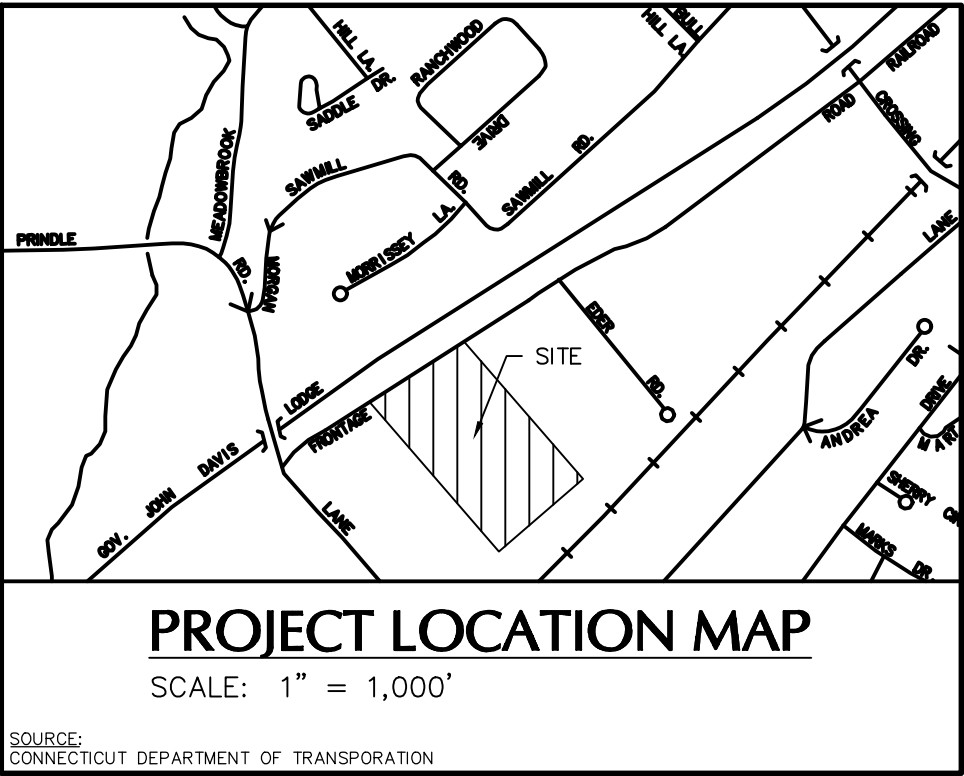
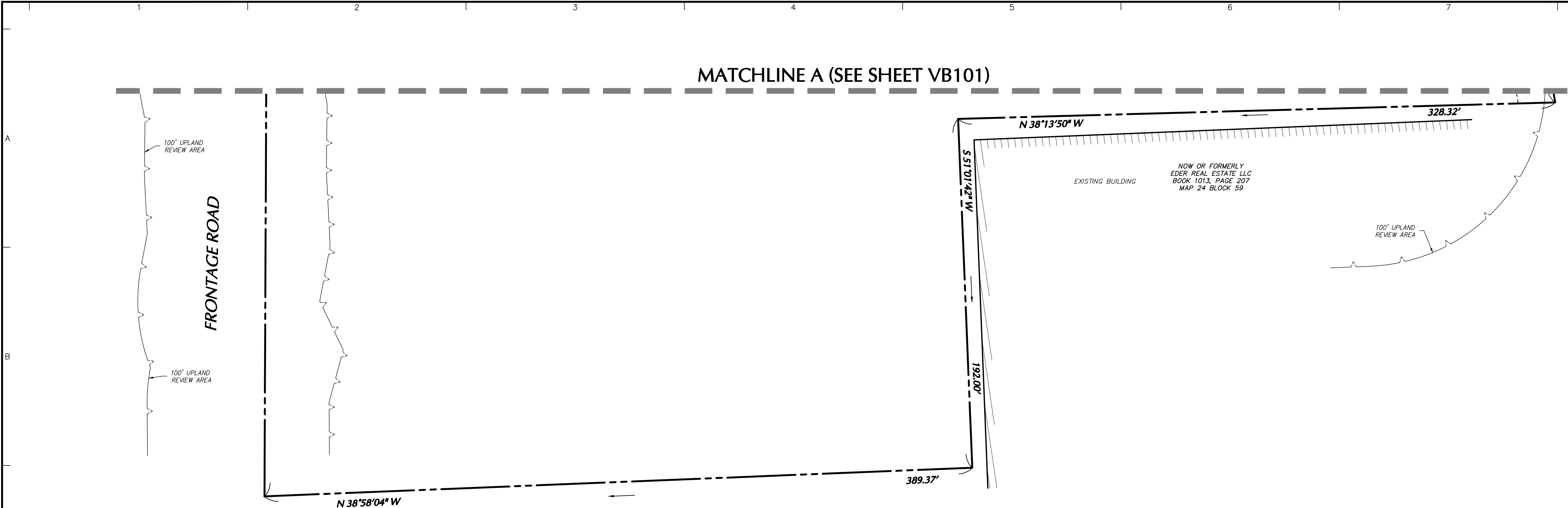
WEST HAVEN CONNECTICUT

Drawing Title

BOUNDARY & TOPOGRAPHIC SURVEY

Project No.	Drawing No.
140198610	VB101
Date	JULY 9, 2021
Drawn By	SG
Checked By	ACI
Sheet 1 of 2	



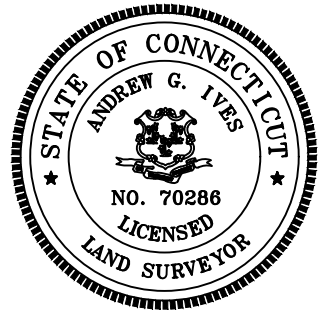


NOTES

- THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
 - THIS SURVEY IS A PROPERTY SURVEY CONFORMING TO A HORIZONTAL ACCURACY OF A-2 AND A TOPOGRAPHIC SURVEY CONFORMING TO A T-2 ACCURACY. THE BOUNDARY DETERMINATION IS A RESURVEY. THE PURPOSE OF THIS SURVEY IS TO PROVIDE A BOUNDARY OPINION AND DEPICT SITE FEATURES FOR FUTURE SITE DEVELOPMENT.
- THIS SURVEY IS BASED UPON EXISTING PHYSICAL CONDITIONS FOUND AT THE SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:
 - MAP TITLED "ALTA/ACSM LAND TITLE SURVEY OF INDUSTRIAL PROPERTIES 350 FRONTAGE ROAD NEW HAVEN COUNTY, WEST HAVEN, CONNECTICUT" SCALE: 1" = 60' DATED: 3/17/2016, REVISED 4/13/2016 BY AMERICAN SURVEYING & MAPPING INC.
- THE MERIDIAN OF THIS SURVEY IS REFERENCED TO CONNECTICUT STATE PLANE COORDINATE SYSTEM NAD 83 (EPOCH 2011). POSITION WAS DETERMINED BY GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS) AS PROVIDED BY HXGN SMARTNET CONTINUOUSLY OPERATED REFERENCE STATIONS (CORS).
- ELEVATIONS SHOWN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) (GEOID 12B) AS DETERMINED BY GNSS
- PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN CT, INC. FIELD WORK COMPLETED DURING THE MONTH OF JUNE 2021.
- AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP ENTITLED "NEW HAVEN COUNTY, CONNECTICUT PANEL 438 OF 635, MAP NUMBER 09009C0438H, EFFECTIVE DATE DECEMBER 17, 2010" THE PROJECT AREA IS IN ZONE X (UNSHADED).
- UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC.). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND LOCATIONS WHERE DATA IS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE, THE SURVEYOR CANNOT, AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.
- ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.
- UNLESS SPECIFICALLY NOTED HEREON, THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.
- ALL BUILDINGS AND STRUCTURES WERE LOCATED AND MEASURED AT GROUND LEVEL. THE SURVEYOR MAKES NO DETERMINATIONS OR GUARANTEES AS TO THE ABSENCE, EXISTENCE OR LOCATION OF UNDERGROUND STRUCTURES, FOUNDATIONS, FOOTINGS, PROJECTIONS, WALLS, TANKS, SEPTIC SYSTEMS, ETC. NO TEST PITS, EXCAVATIONS OR GROUND PENETRATING RADAR WERE PERFORMED AS PART OF THIS SURVEY.
- WETLAND FLAGS DEPICTED ON THIS SURVEY WERE DELINEATED BY ALL-POINTS TECHNOLOGY, INC. ON MULTIPLE DATES.
- PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
- THIS SURVEY IS NOT VALID WITHOUT THE EMBOSSED OR INKED SEAL OF THE PROFESSIONAL.

LEGEND (NOT SHOWN TO SCALE)

	BOLLARD	BW	BOTTOM OF WALL
	COLUMN	EP	EDGE OF PAVEMENT
	DOOR	EG	EDGE OF GRAVEL
	FLAG POLE	EW	EDGE OF WALK
	MONITORING WELL	BB	BELGIUM BLOCK
	SIGN	BC	BITUMINOUS CURB
	TREE	CC	CONCRETE CURB
	WETLAND FLAG	GC	GRANITE CURB
	GROUND LIGHT	SG	SLOPED GRANITE CURB
	CATCH BASIN	SWS	SINGLE WHITE STRIPE
	CLEANOUT	BWS	BROKEN WHITE STRIPE
	ELECTRIC BOX	SYS	SINGLE YELLOW STRIPE
	ELECTRIC METER	DYS	DOUBLE YELLOW STRIPE
	FIRE HYDRANT		METAL GUARD RAIL
	GAS METER		WOOD GUARD RAIL
	GAS VALVE		STOCKADE FENCE
	GUY WIRE		CHAINLINK FENCE
	MANHOLE (TYPE AS LABELED)		TREE LINE
	POST INDICATOR VALVE		OVERHEAD WIRE
	POWER POLE		WETLAND LINE
	ROOF DRAIN		EASEMENT LINE
	STANDPIPE		PROPERTY LINE
	WATER VALVE		RIGHT-OF-WAY LINE
	SPOT ELEVATION		CONTOUR LINE
	BITUMINOUS		ELECTRIC MARK OUT LINE
	CONCRETE		GAS MARK OUT LINE
	CONCRETE PAD		SANITARY SEWER MARK OUT LINE
	LANDSCAPED AREA		WATER MARK OUT LINE
	BUILDING OVERHANG		



09/22/2025	UPDATED WETLANDS	1
Date	Description	No.

REVISIONS

"TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON."

ANDREW G. IVES DATE SIGNED
PROFESSIONAL LAND SURVEYOR
CT STATE LIC. NO. 70286

LANGAN

Langan CT, Inc.
555 Long Wharf Drive
New Haven, CT 06511

T: 203.562.5771 F: 203.789.6142 www.langan.com

Project

PROJECT RENO

350 FRONTAGE ROAD

WEST HAVEN CONNECTICUT

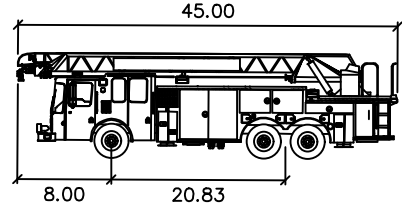
Drawing Title

BOUNDARY & TOPOGRAPHIC SURVEY

Project No. 140198610	Drawing No. VB102
Date JULY 9, 2021	
Drawn By SG	
Checked By ACI	Sheet 2 of 2



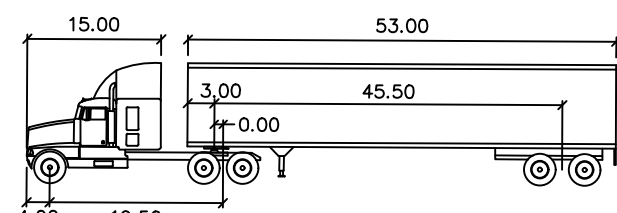
WEST HAVEN FIRE TRUCK TEMPLATE



West Haven, CT Firetruck

Width	feet
Tractor	: 8.00
Lock to Lock Time	: 8.50
Steering Angle	: 45.0

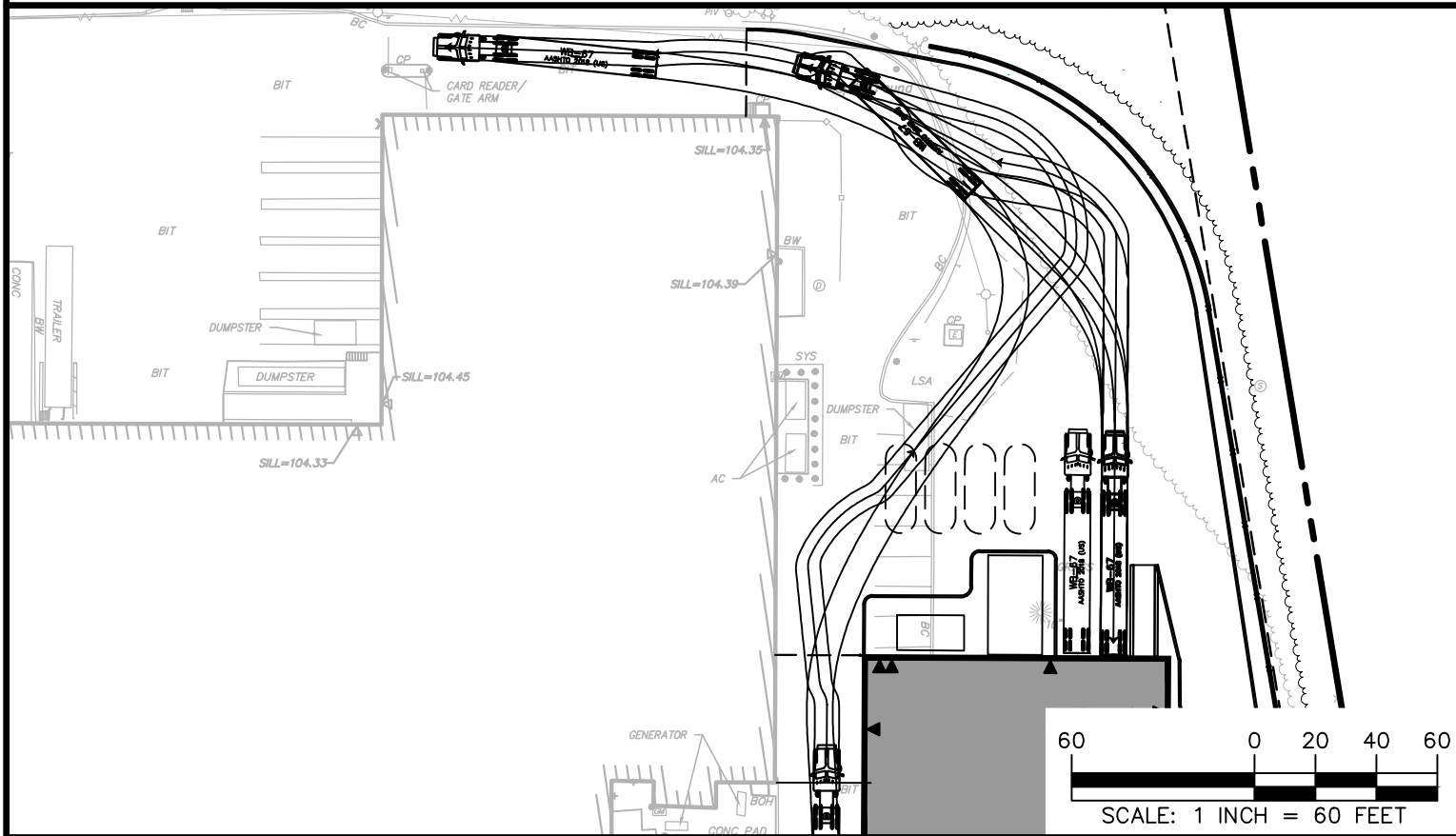
WB-67 TEMPLATE



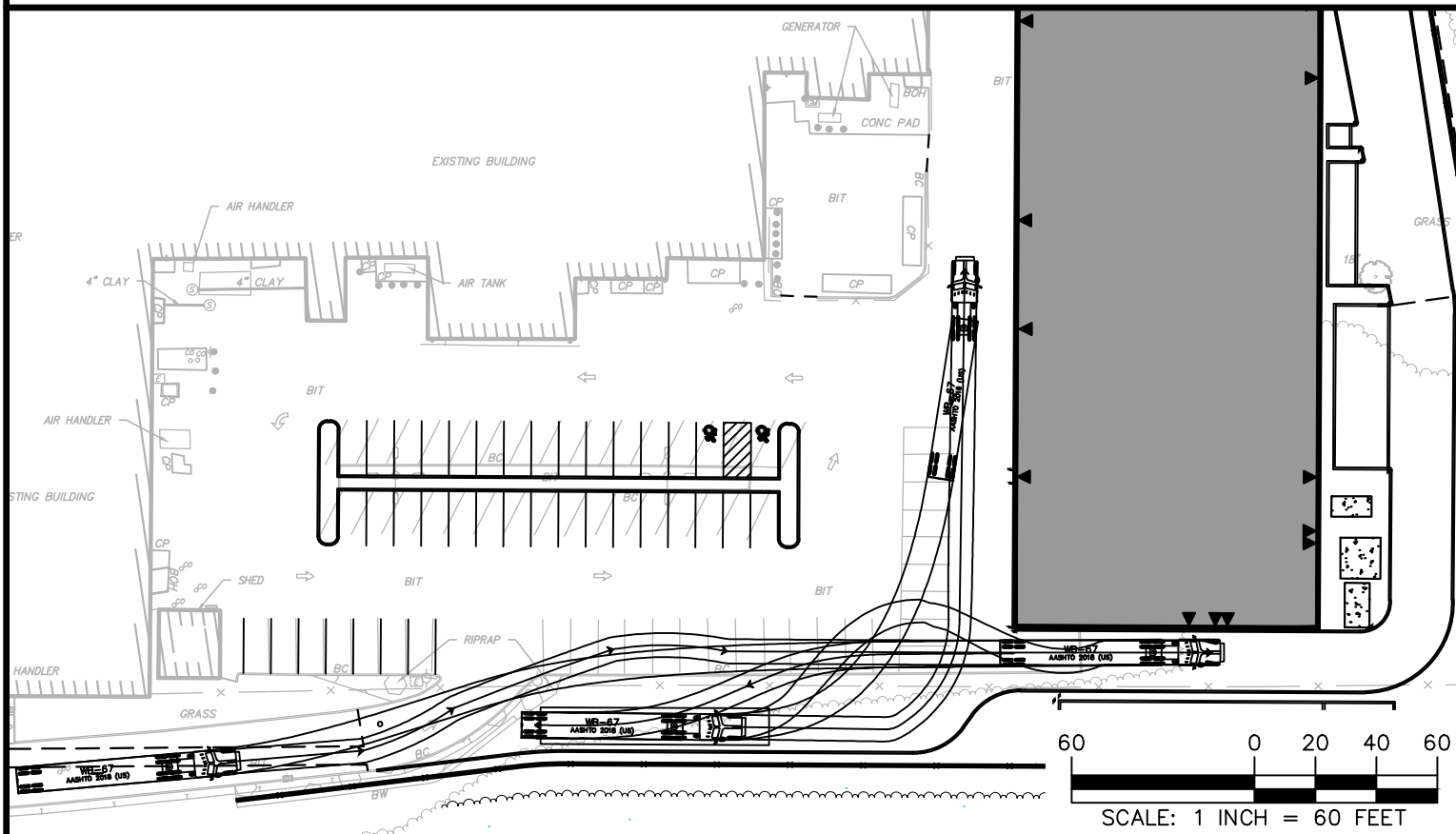
WB-67

Tractor Width	feet	Lock to Lock Time	: 6.0
Trailer Width	: 8.00	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

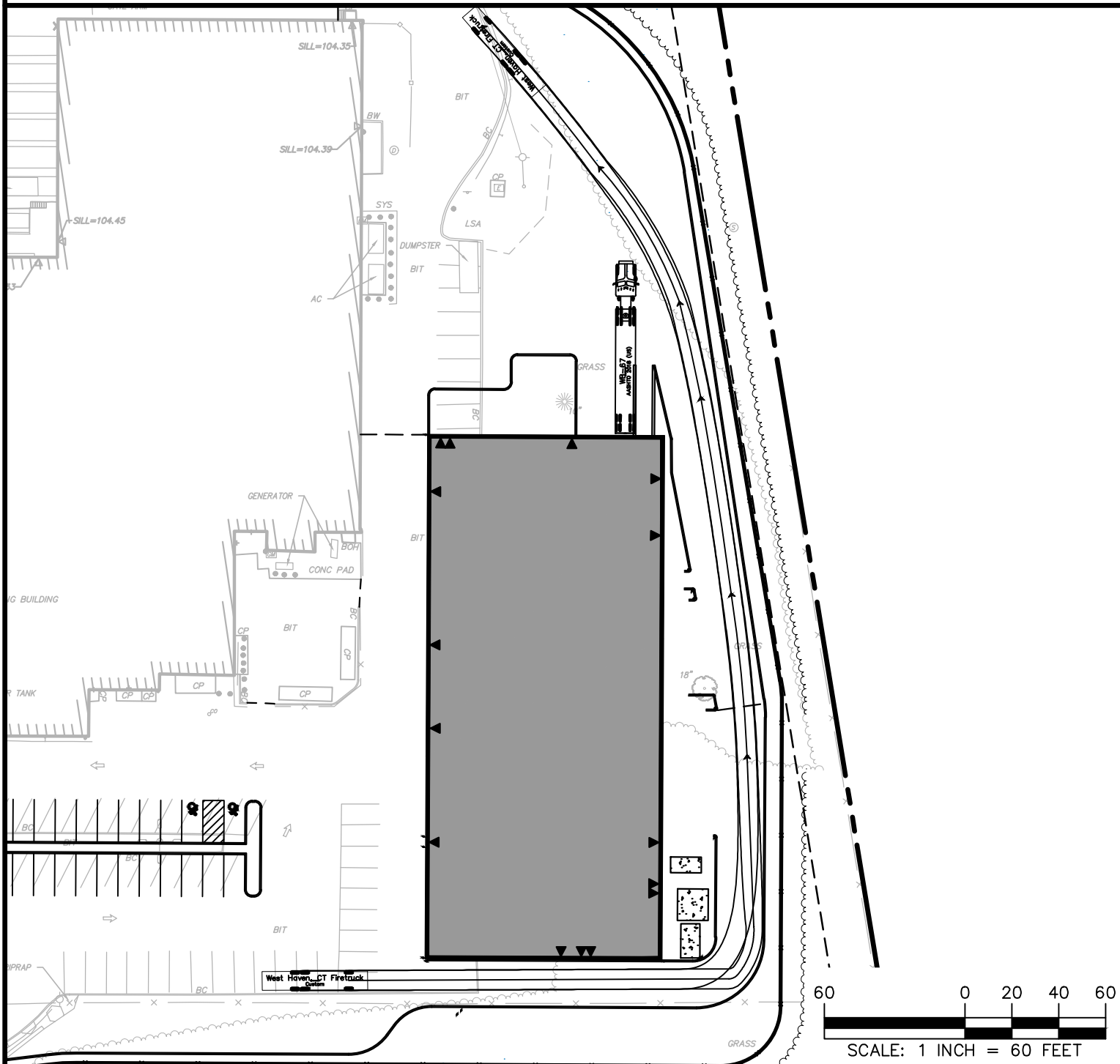
WB-67 TURNING MOVEMENT



WB-67 TURNING MOVEMENT



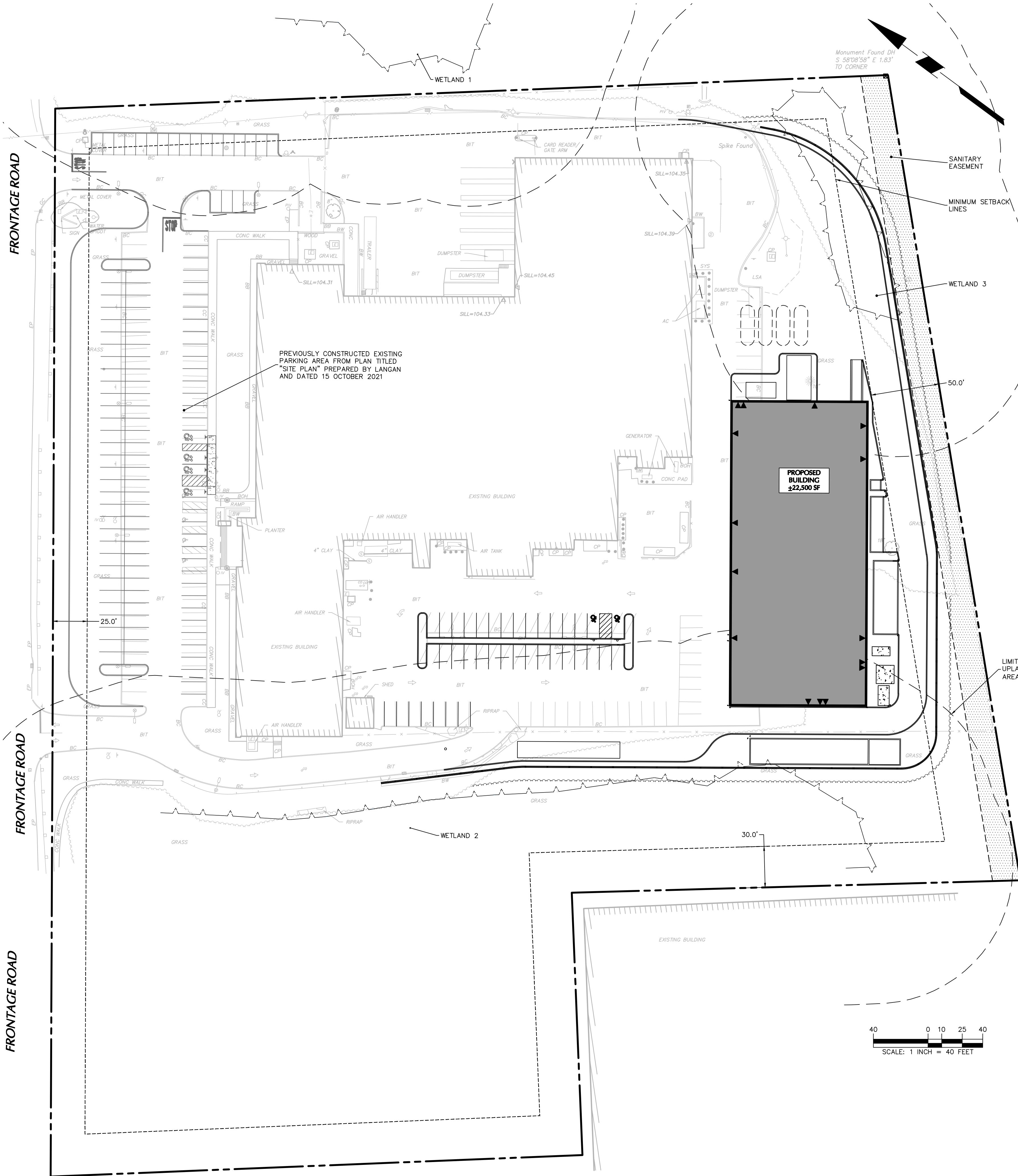
FIRE TRUCK TURNING MOVEMENT



FRONTAGE ROAD

FRONTAGE ROAD

FRONTAGE ROAD



GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY LANGAN, AND DATED 9 JULY 2021.
- SITE IMPROVEMENTS INCORPORATED INTO THE SURVEY TAKEN FROM A PLAN ENTITLED "SITE PLAN" PREPARED BY LANGAN, DATED 15 OCTOBER 2021.
- THE SITE IS LOCATED IN ZONE X, AN AREA OF MINIMAL FLOODING PER FIRM MAP 09008C0438H, EFFECTIVE DECEMBER 17, 2010.
- PROPOSED BUILDING FOOTPRINT RECEIVED ELECTRONICALLY FROM ITAC CORPORATION DATED SEPTEMBER 2025.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE	---	---
BUILDING LINE	---	---
BUILDING DOOR	▼	▼
CURB LINE	---	---
LANDSCAPE AREA	---	LA
SANITARY EASEMENT	---	---
SETBACK LINES	---	---
LIMIT OF REGULATED AREA	---	---

ZONING CHART

EXISTING ZONE: LM PROPOSED USE: WAREHOUSE & OFFICE USE PARCEL AREA: 462,286 SF = 10.61 AC				
LOT/BUILDING	REQUIRED	EXISTING	PROPOSED	SECTION
MINIMUM LOT SIZE	40,000 SF	462,286 SF	462,286 SF	TABLE 25.1
MINIMUM FRONT YARD	25 FT	134.7 FT	134.7 FT	TABLE 25.1
MINIMUM SIDE YARD	30 FT	49.5 FT	49.5 FT	TABLE 25.1
MINIMUM REAR YARD	50 FT	150.8 FT	50.0 FT	TABLE 25.1
MINIMUM STREET FRONTAGE	125 FT	780 FT	780 FT	TABLE 25.1
MAXIMUM BUILDING COVERAGE	35%	17.9%	22.7%*	TABLE 25.1
MAXIMUM LOT COVERAGE	65%	47.5%	57.4%*	TABLE 25.1
MAXIMUM HEIGHT (STORIES)	6 STORIES	2 STORIES	2 STORIES	TABLE 25.1
MAXIMUM HEIGHT (FEET)	80 FT	33.0 FT	33.0 FT	TABLE 25.1
MAXIMUM IMPERVIOUS SURFACE COVERAGE	30%	29.6%	34.7%*	TABLE 25.1
MINIMUM OPEN SPACE	35%	52.5%	42.6%	TABLE 25.1

* THE MAXIMUM BUILDING COVERAGE AND IMPERVIOUS COVERAGE COMBINED TOTALS LESS THAN MAXIMUM LOT COVERAGE

PARKING TABLE

EXISTING:
OFFICE USE (1 SPACE PER 200 SF)
WAREHOUSE USE (1 SPACE PER EMPLOYEE)

10,000 SF/200 = 50 SPACES
51 EMPLOYEES = 51 SPACES
REQUIRED = 101 SPACES
EXISTING = 203 SPACES

PROPOSED:
OFFICE USE (1 SPACE PER 200 SF)
WAREHOUSE USE (1 SPACE PER EMPLOYEE)

13,200 SF/200 = 66 SPACES
78 EMPLOYEES = 78 SPACES
REQUIRED = 144 SPACES
PROPOSED = 159 SPACES

09/24/25	ADDED NOTE	1
Date	Description	No.

Revisions



LANGAN

Langan CT, Inc.
555 Long Wharf Drive, 9th Floor
New Haven, CT 06511
T: 203.562.5771 F: 203.789.6142 www.langan.com

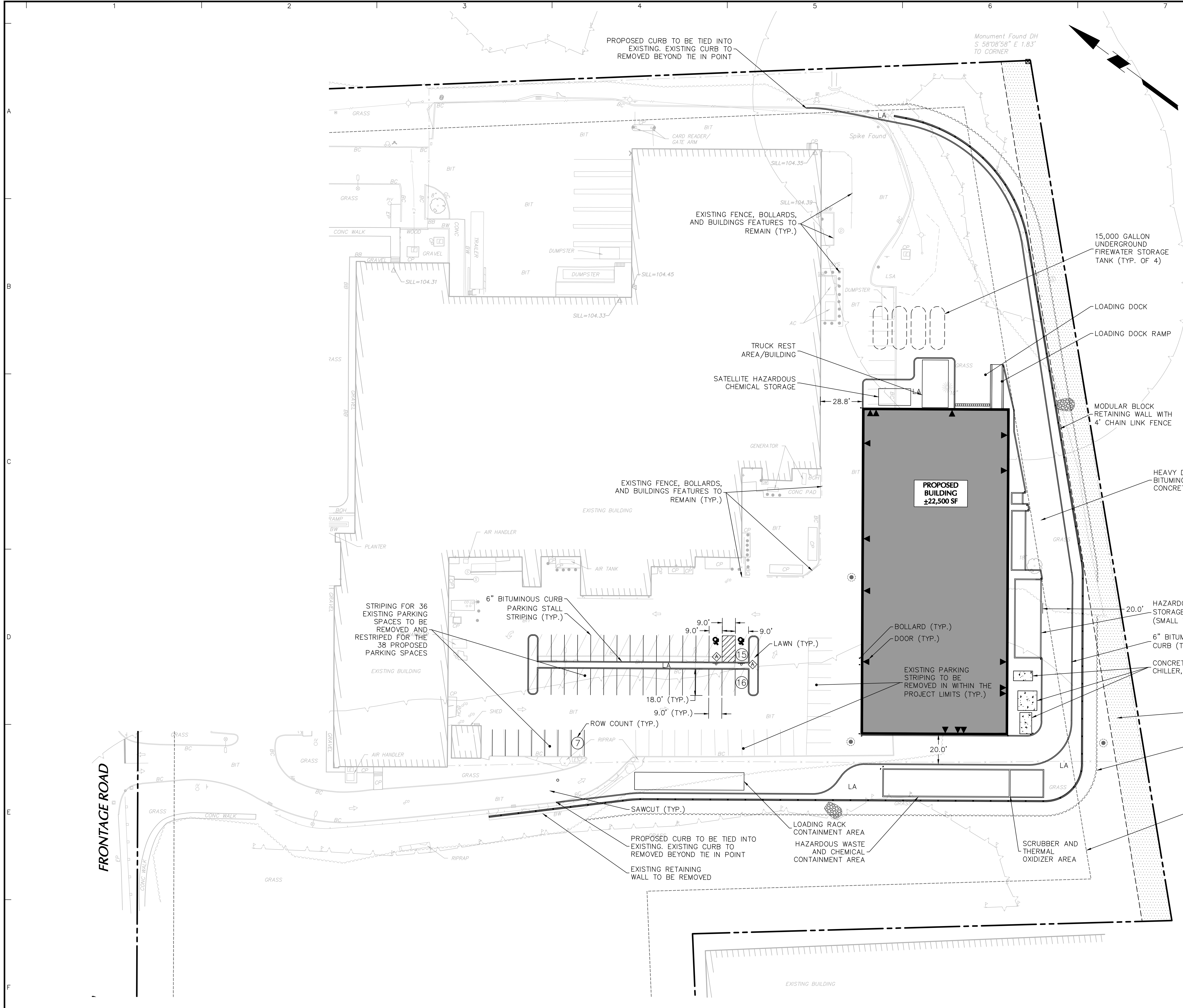
Project
**MACDERMID ALPHA
NEW PROCESS
BUILDING**

WEST HAVEN CONNECTICUT
Drawing Title

OVERALL SITE PLAN

Project No. 140324701	Drawing No. CS100
Date 09/22/2025	
Drawn By APF	
Checked By BP	

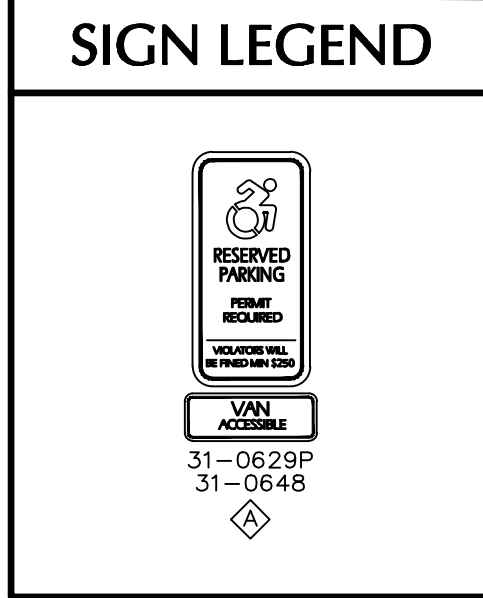
Sheet 3 of 16



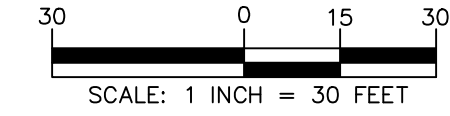
- ### GENERAL NOTES
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LEGEND

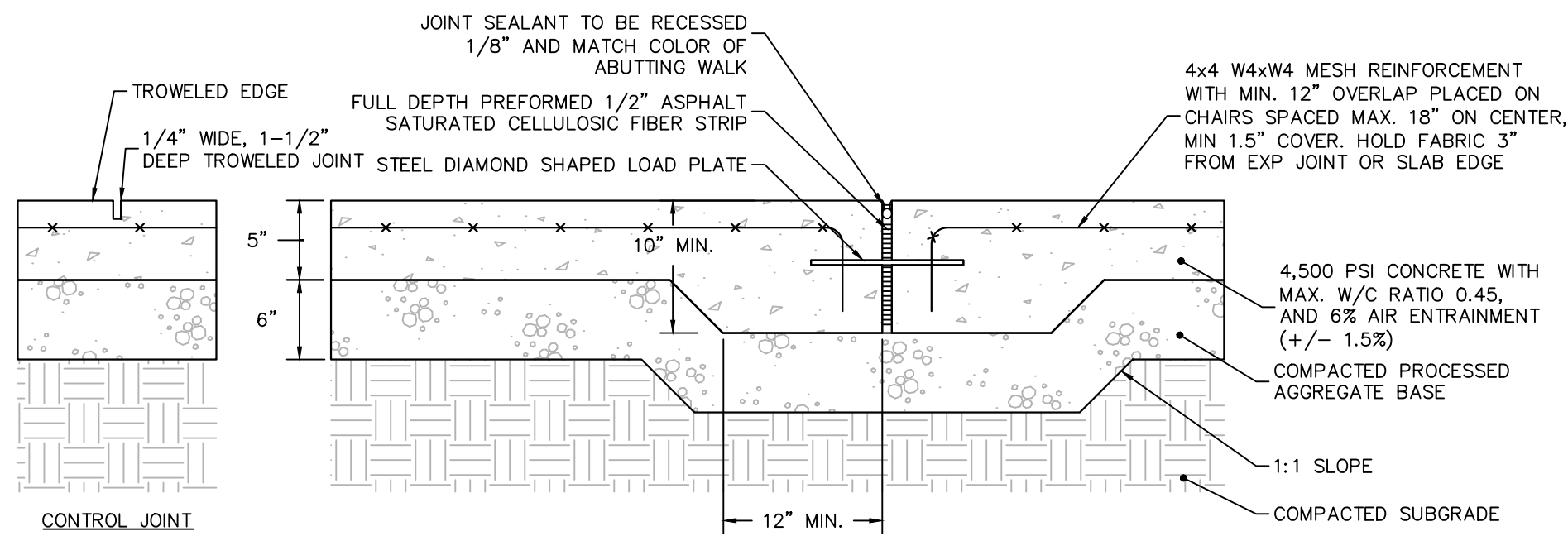
	EXISTING	PROPOSED
PROPERTY LINE	---	---
BUILDING LINE	---	---
BUILDING DOOR	▼	▼
CURB LINE	---	---
LANDSCAPE AREA		LA
SANITARY EASEMENT		
CONCRETE		



Date	Description	No.
Revisions		
LANGAN		
Langan CT, Inc. 555 Long Wharf Drive, 9th Floor New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT Drawing Title		
SITE PLAN		
Project No. 140324701		Drawing No. CS101
Date 09/22/2025		CS101
Drawn By JAD		
Checked By BP		
Sheet 4 of 16		



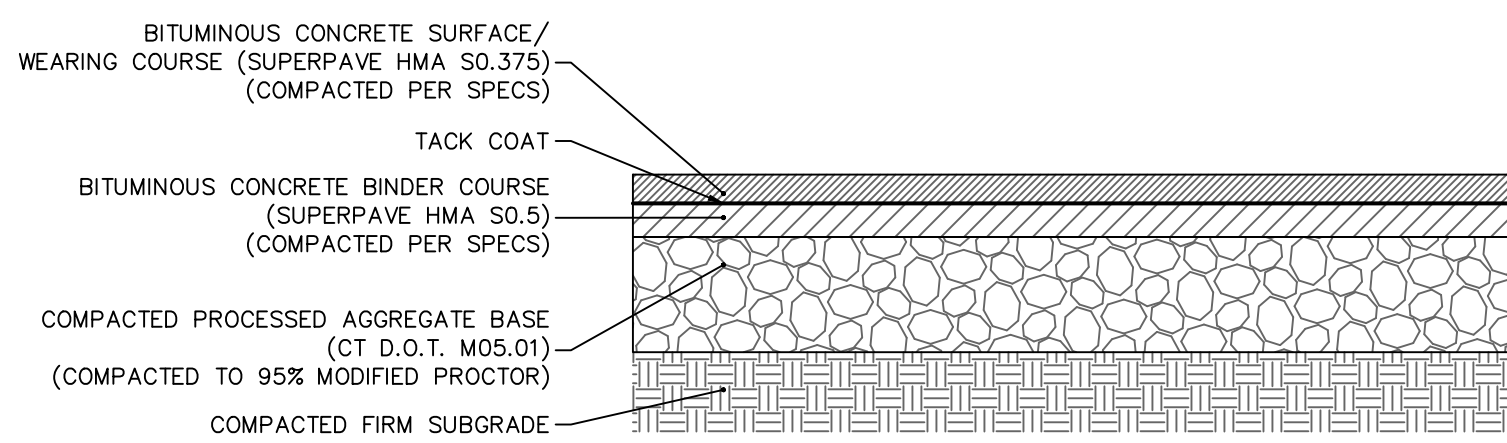
A
B
C
D
E
F



- NOTES:
1. ALL CONTROL JOINTS TO BE SAWCUT, REFER TO ENLARGEMENT.
 2. SIDEWALKS TO COMPLY WITH CITY STANDARDS WHERE APPLICABLE.
 3. 1/2" LOAD PLATES SPACED 24" ON CENTER SHALL BE USED IN LIEU OF ROUND DOWELS EXCEPT AT AREAS WHERE PROPOSED WALK TIES INTO EXISTING. IN AREAS WHERE USED, DOWELS TO BE 12" LONG, 1/2" DIAMETER EPOXY COATED STEEL LOCATED 18" ON CENTER, GREASE ONE END.
 4. LOAD PLATES, DOWELS, AND EXPANSION JOINTS SHALL BE UTILIZED AT ALL LOCATIONS WHERE CONCRETE IS POURED ABUTTING STATIONARY OBJECTS.
 5. EXPANSION AND CONTROL JOINTS SHALL BE INSTALLED PER LAYOUT AND DIMENSIONING PLANS. IF NOT SPECIFICALLY DETAILED MAXIMUM SPACING OF JOINTS SHALL BE AS FOLLOWS:
EXPANSION - 20 FT.
CONTROL - 5 FT.
 6. CONTROL JOINTS SHALL BE SPACED EQUAL TO THE WIDTH. CARE SHALL BE TAKEN TO ASSURE UNIFORM GRADE, FREE OF SAGS AND SHORT GRADE CHANGES.
 7. SURFACE TEXTURE SHALL BE A LIGHT BROOMING, TRANSVERSE TO THE LENGTH OF THE WALK.
 8. CONTRACTOR TO PROVIDE MOCKUP SHOWING EXPANSION JOINTS, SAWCUT JOINTS, AND BROOM FINISH PRIOR TO INSTALLATION.

ON-SITE CONCRETE SIDEWALK

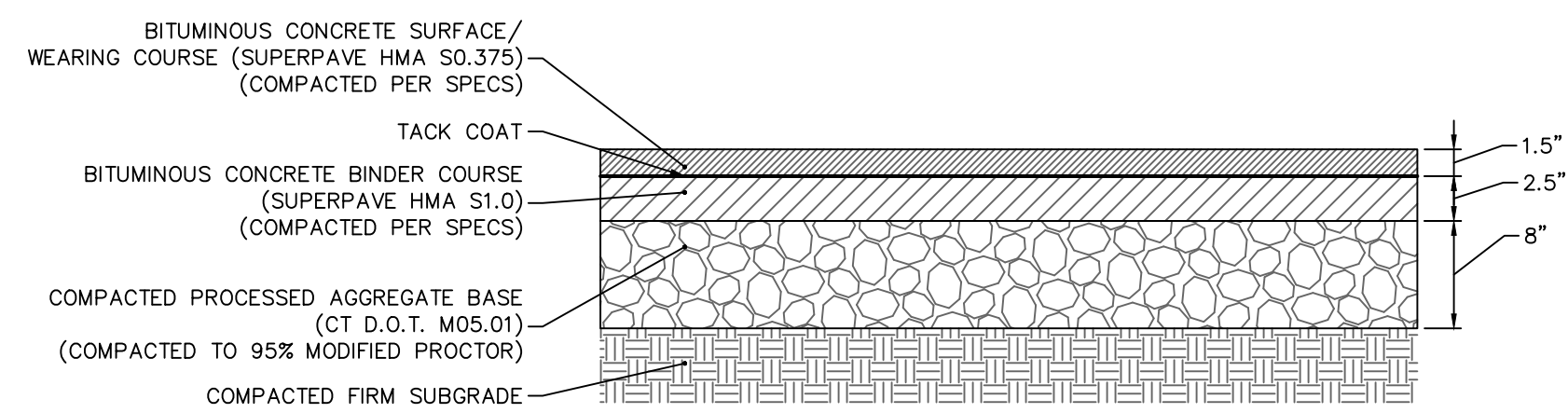
N.T.S.



- NOTES:
1. PROVIDE BITUMINOUS CONCRETE PAVEMENT AS INDICATED ON THE SITE PLAN.
 2. PRIOR TO ANY PAVING ACTIVITIES, THE SUBGRADE OR BASE SHALL BE PROOF ROLLED.
 3. PAVING BASE COURSE SHALL BE CONSTRUCTED IN LAYERS NOT LESS THAN 2 INCHES AND NOT MORE THAN 5 INCHES THICK PER LIFT.
 4. ALL AREAS TO BE PAVED SHALL BE PROOFROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5-TONS OR A FULLY LOADED TANDEM DUMP TRUCK. ANY SOFT AREAS SHALL BE REMOVED AND REPLACED WITH CLEAN, GRANULAR, FREE-DRAINING SOIL. FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 12-INCHES AND SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.
 5. BITUMINOUS CONCRETE SUPERPAVE SHALL CONFORM TO CONNECTICUT D.O.T. STANDARD SPECIFICATIONS, FORM 819, SECTION 4.06, LATEST EDITION FOR TRAFFIC LEVEL 1.
 6. PROCESSED AGGREGATE BASE SHALL CONFORM TO CONNECTICUT D.O.T. STANDARD SPECIFICATIONS, FORM 819, SECTION 3.04, LATEST EDITION.
 7. CONTRACTOR SHALL COORDINATE WITH GEOTECHNICAL EXPLORATION MEMORANDUM DATED SEPTEMBER, 2025, PROVIDED BY LANGAN CT, INC. FOR MORE INFORMATION.

BITUMINOUS CONCRETE - STANDARD DUTY

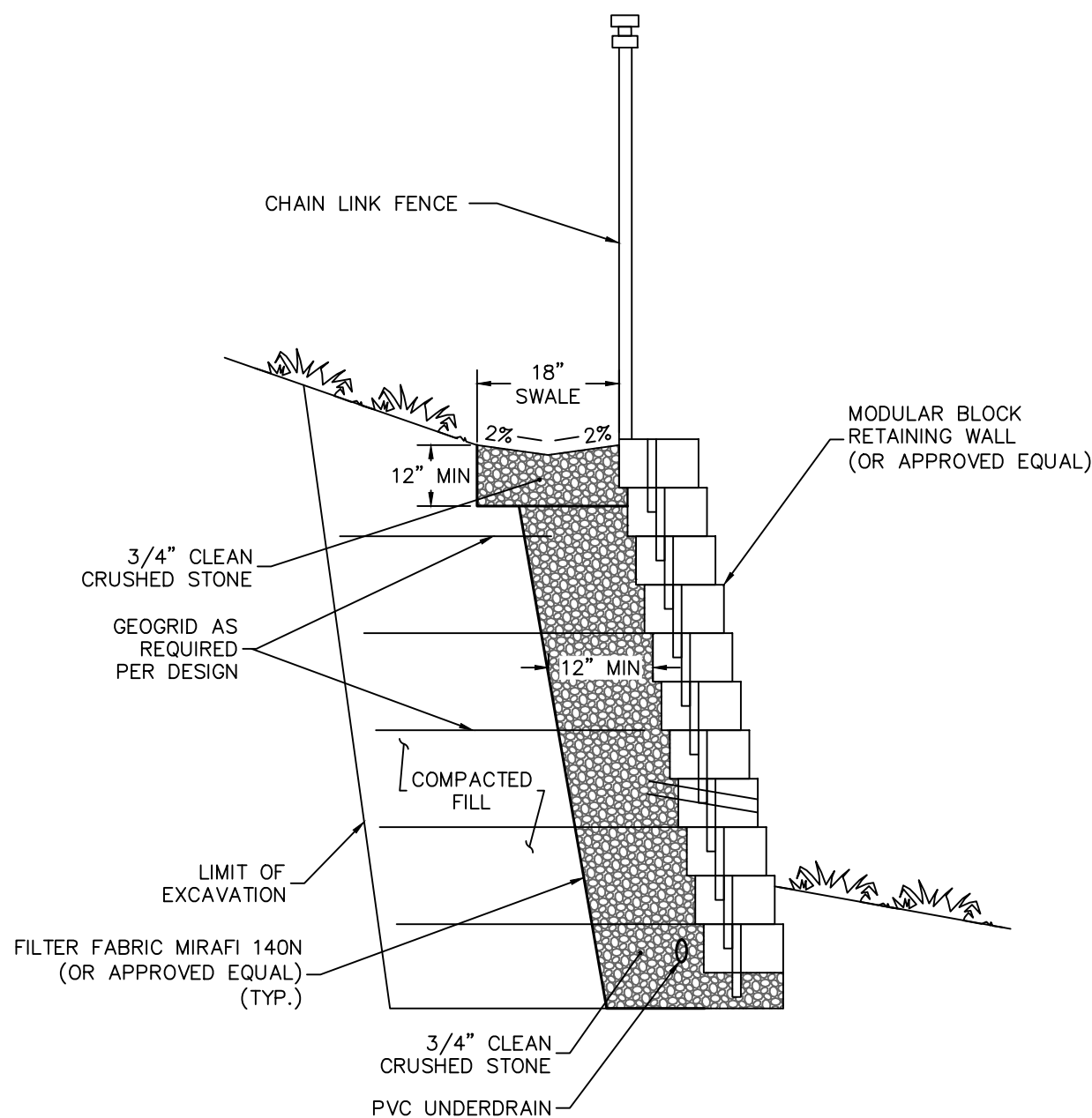
N.T.S.



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BITUMINOUS CONCRETE - HEAVY DUTY

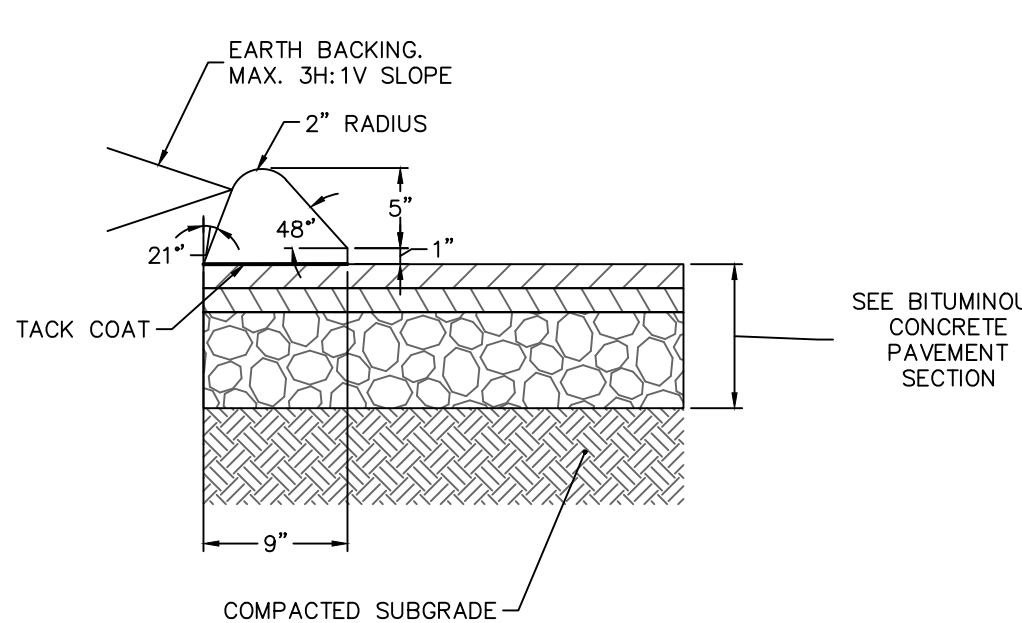
N.T.S.



- NOTE:
1. DETAIL IS SHOWN FOR GENERAL CONCEPT OF A GEOGRID REINFORCED MODULAR BLOCK RETAINING WALL.
 2. ALL MODULAR BLOCK RETAINING WALLS THREE FEET OR GREATER IN EXPOSED HEIGHT MUST BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT. STABILITY FOR RETAINING WALLS (INTERNAL AND EXTERNAL), INCLUDING GLOBAL STABILITY, MUST BE ANALYZED BY THE RETAINING WALL DESIGN ENGINEER OF RECORD.
 3. CONTRACTOR TO SUBMIT SIGNED AND SEALED DESIGN AND DRAWINGS BY CT P.E. FOR REVIEW DURING SHOP DRAWING PROCESS.

MODULAR BLOCK RETAINING WALL

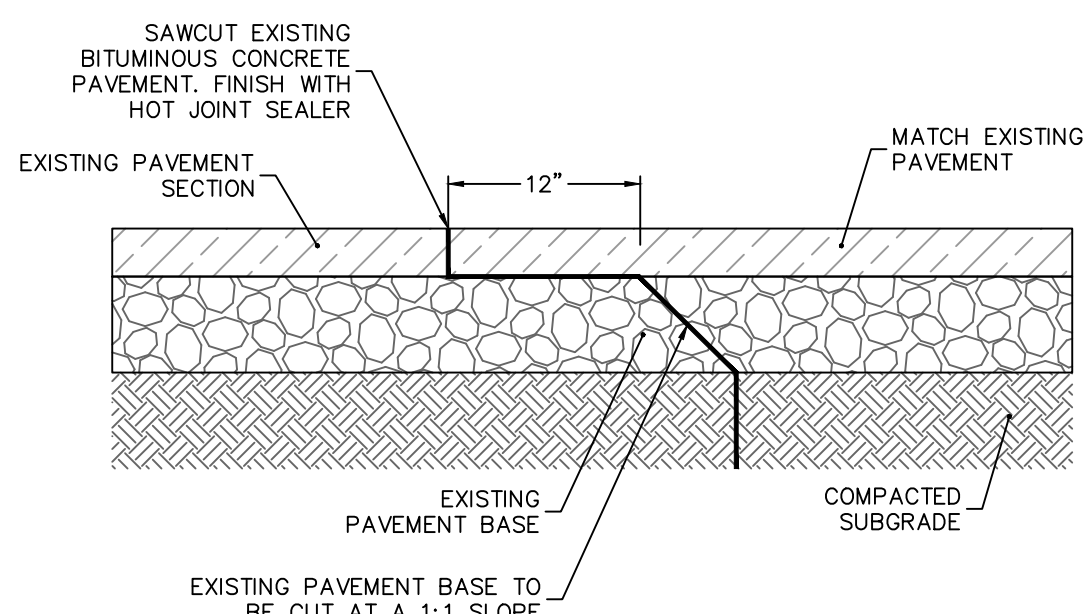
N.T.S.



- NOTES:
1. PROVIDE NOTCHED SEAT IN CURB AT LOCATIONS OF INTEGRAL BITUMINOUS CONCRETE SIDEWALK AND CURB

6" BITUMINOUS CURB

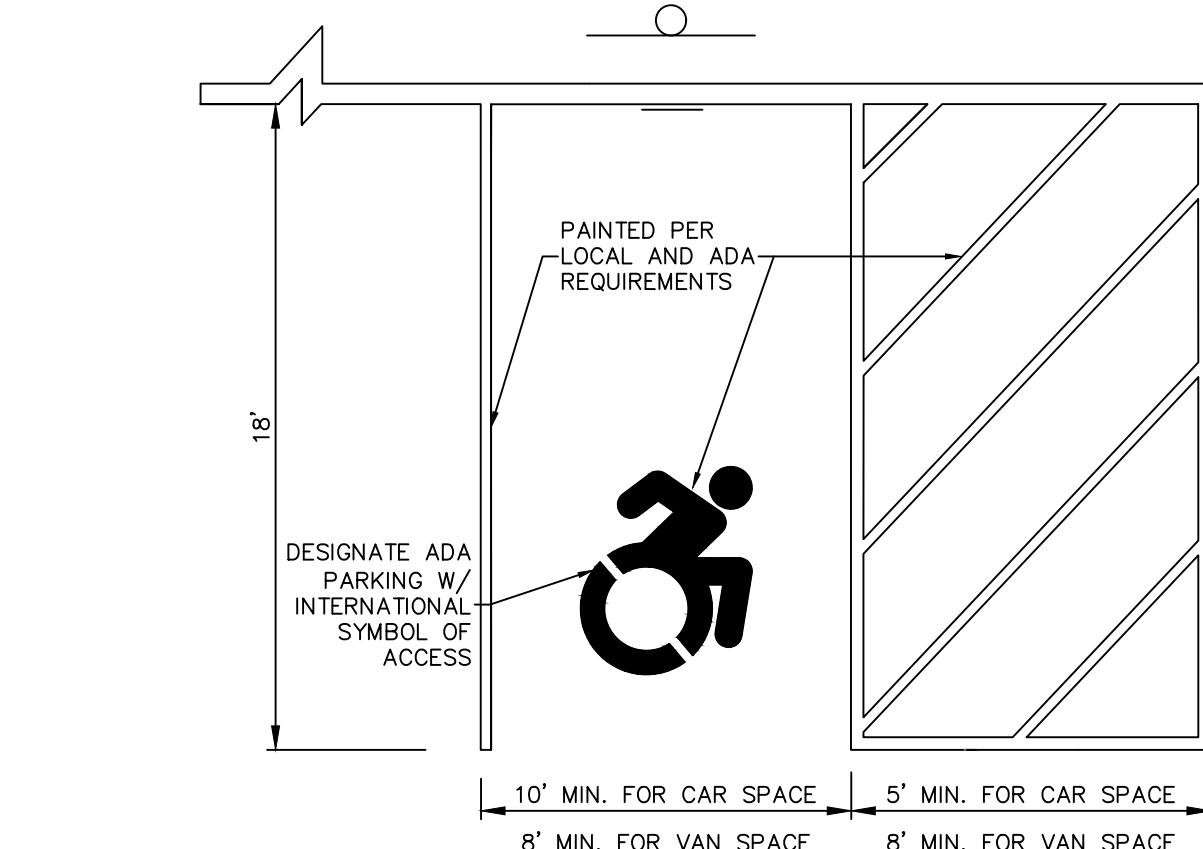
N.T.S.



- NOTES:
1. CONTRACTOR TO INSTALL TACK COAT ON ALL BUTT EDGES OF EXISTING PAVEMENT

SAW CUT PAVEMENT SECTION

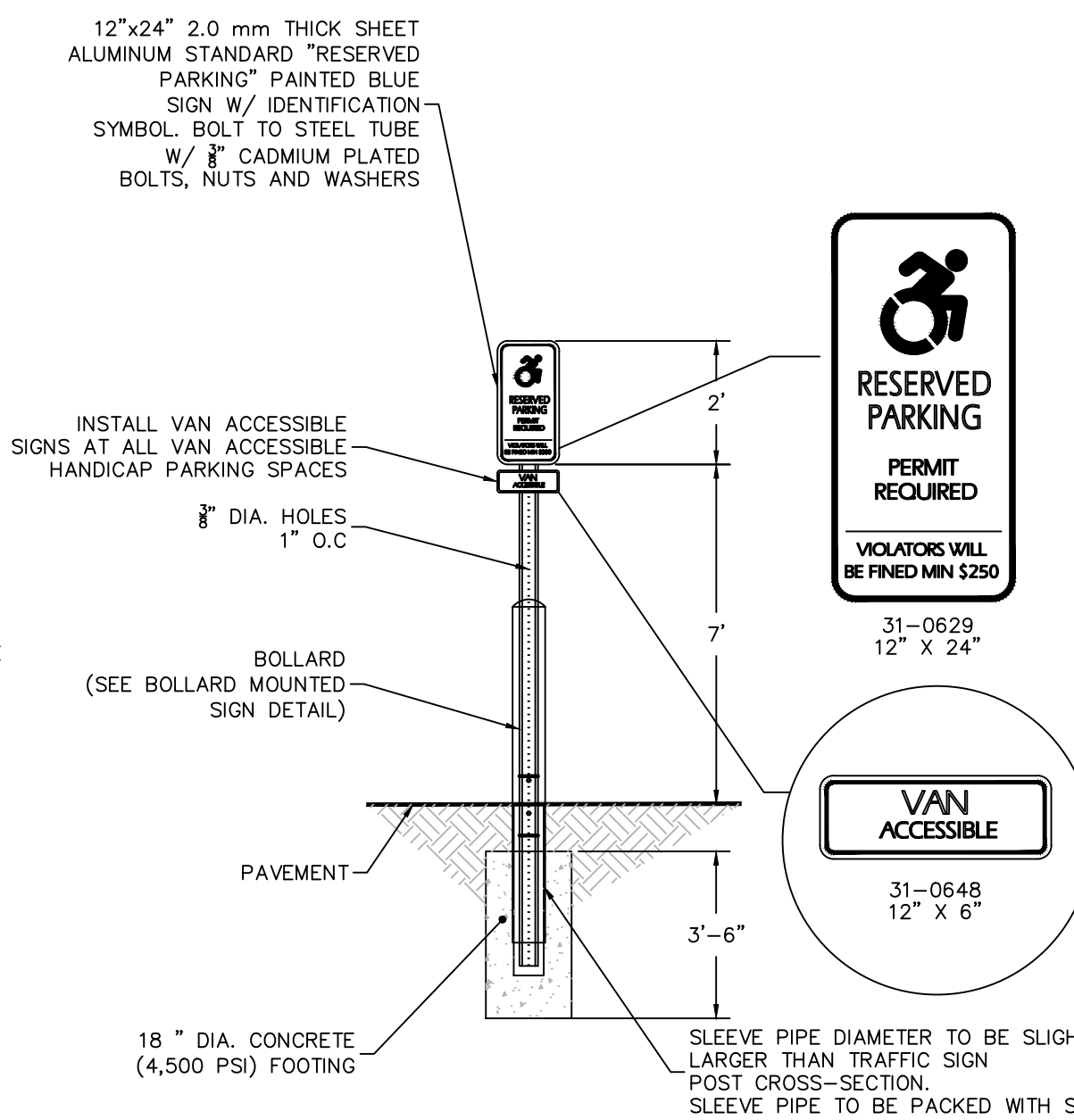
N.T.S.



- NOTES:
1. ALL PAINT SHALL BE EPOXY RESIN PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
 2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN DISABILITIES ACT (ADA) AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 3. APPLY TWO COATS OF TRAFFIC PAINT. ALLOW FOR A MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.

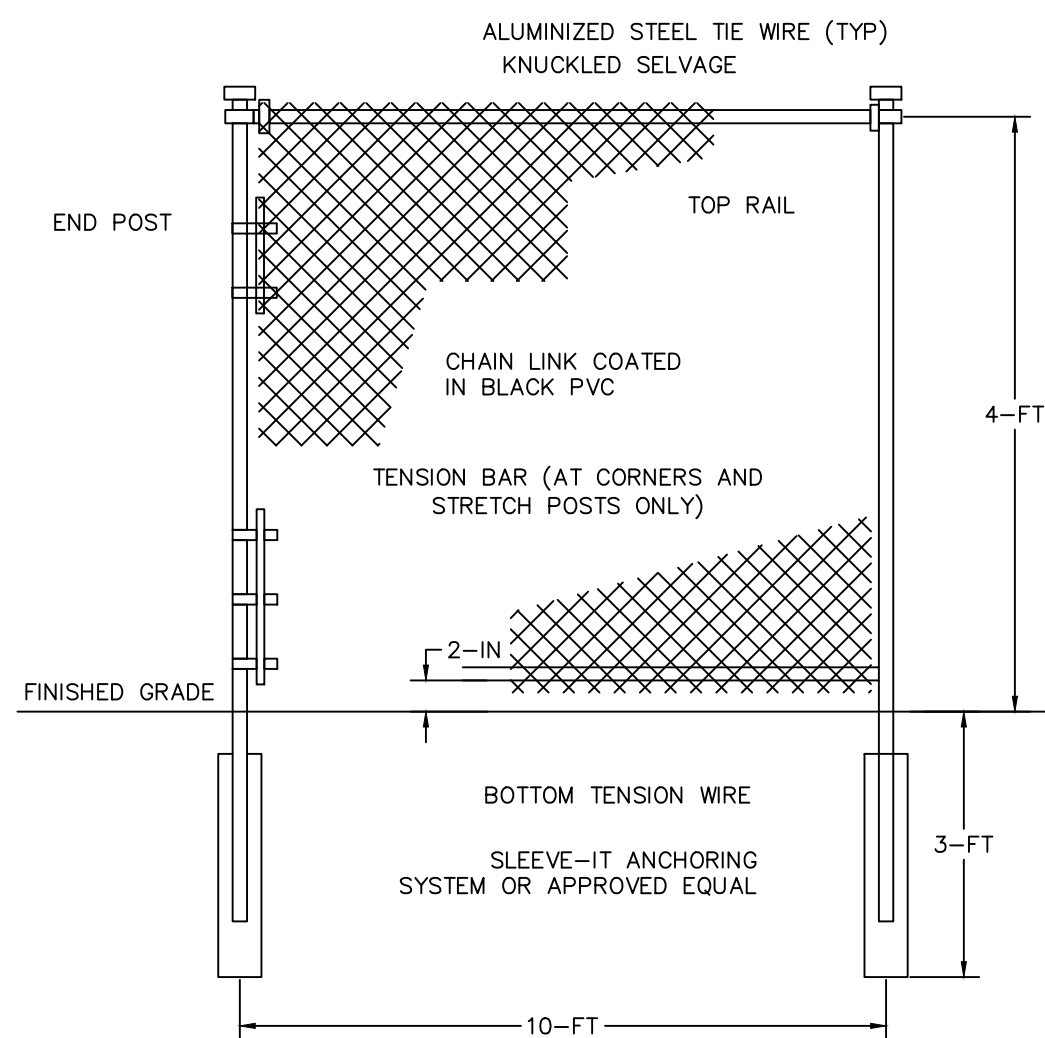
ADA PARKING STRIPING

N.T.S.



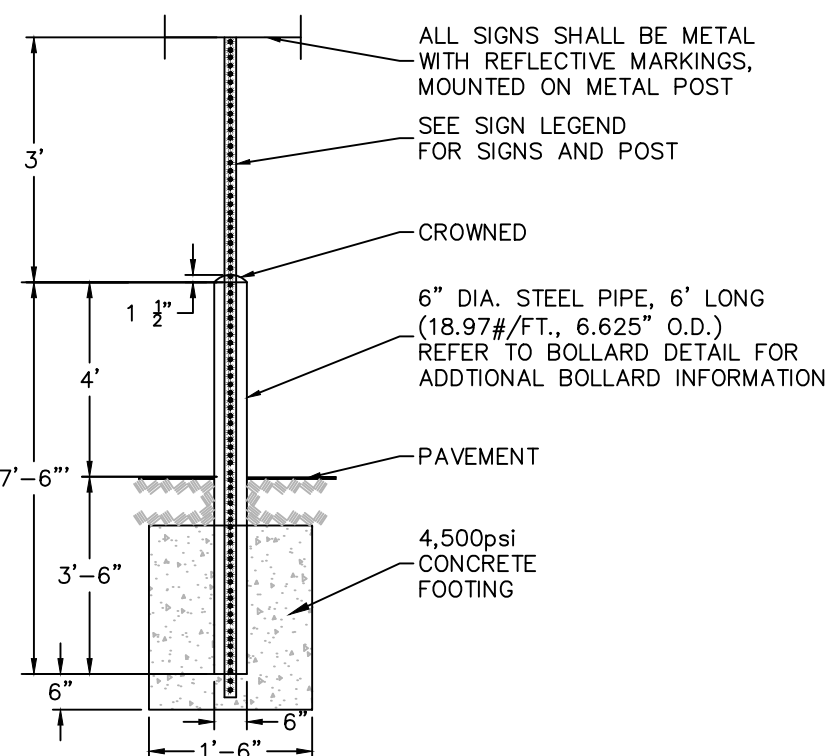
ADA PARKING SIGN

N.T.S.



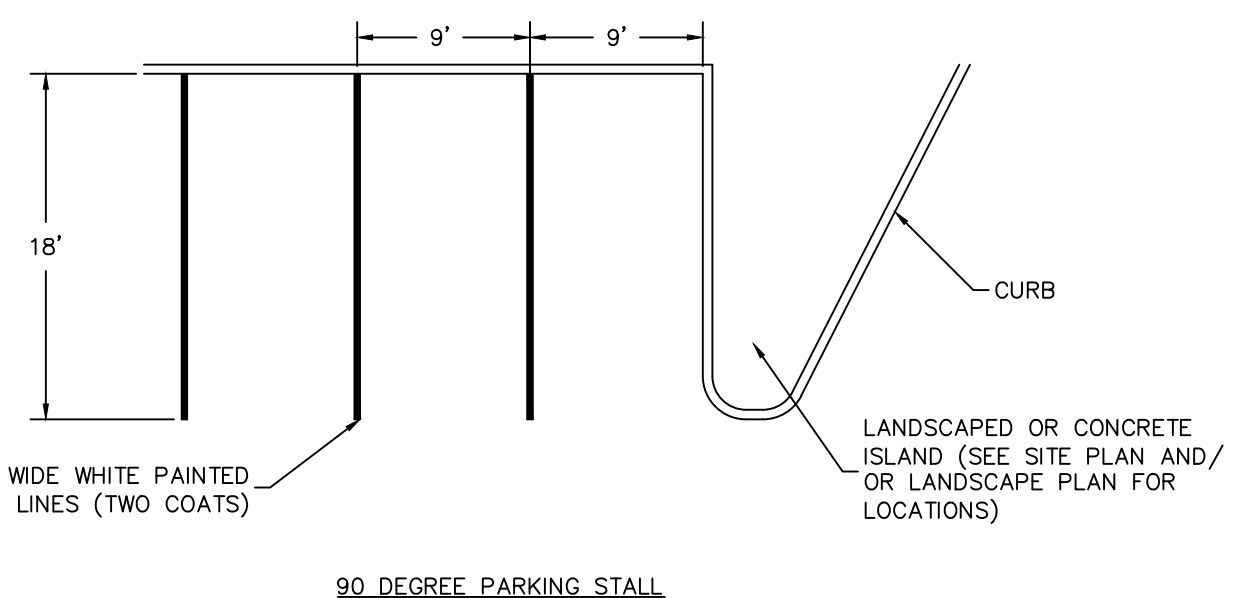
4 FT CHAIN LINK FENCE

N.T.S.



BOLLARD MOUNTED SIGN

N.T.S.



- NOTES:
1. ALL PAINT SHALL BE SHERWIN-WILLIAMS "SETFAST" PAINT. #TM2160 - WHITE APPLY 2 COATS OF TRAFFIC TYPE PAINT.
 2. APPLY THE FIRST COAT NOT LESS THAN 5 DAYS AFTER THE PLACING OF BITUMINOUS PAVEMENT APPLY SECOND COAT JUST PRIOR TO BUILDING OPENING.

PARKING STALL STRIPING

N.T.S.

Date	Description	No.
Revisions		
		
LANGAN		
Langan CT, Inc. 555 Long Wharf Drive, 9th Floor New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project		
MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT		
Drawing Title		
SITE DETAILS		
Project No.	Drawing No.	
140324701	CS501	
Date	09/22/2025	
Drawn By	JAD	
Checked By	BP	
Sheet	5 of 16	

GRADING & DRAINAGE NOTES

1. ALL PROPOSED STORM DRAINAGE PIPING TO UTILIZE WATER-TIGHT JOINTS.
2. LOCATIONS AND ELEVATIONS OF ROOF LEADERS SHOULD BE COORDINATED WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. ALL ROOF LEADERS ARE TO BE INTO PROPOSED UNDERGROUND DRAINAGE NETWORK.
3. CLEANOUTS SHALL BE PROVIDED FLUSH TO GRADE AT ALL LOCATIONS OF ROOF DRAIN INTERSECTIONS, BENDS AND UPSTREAM ENDS.
4. ALL REQUIRED STORM LATERALS SERVICING THE BUILDING SHALL BE COORDINATED AND CONSTRUCTED TO WITHIN FIVE FEET OF EACH BUILDING LATERAL ENTRANCE LOCATION AT THE INVERTS NOTED. ANY NECESSARY EXTENSIONS, RELOCATIONS, OR CORRECTIONS WITHIN FIVE FEET OF THE BUILDING NECESSARY TO COMPLETE CONNECTION OF LATERALS TO THE BUILDINGS SHALL BE MADE BY THE BUILDING CONTRACTOR.
5. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE APPROPRIATE SIZES OF THE DRAINAGE CATCH BASINS AND MANHOLES TO RECEIVE PIPING SHOWN.
6. STORM DRAINAGE PIPING INSTALLATION SHALL COMMENCE AT THE FURTHEST DOWNSTREAM POINT AND PROCEED UPSTREAM "IN THE DRY".
7. ABBREVIATIONS: RCP=REINFORCED CONCRETE PIPE
HDP=HIGH DENSITY POLYETHYLENE PIPE
CQB=CURBED CATCH BASIN
CLOB=CURBLESS CATCH BASIN
MH=MANHOLE
YD=YARD DRAIN
WOU=WATER QUALITY UNIT
OCS=OUTLET CONTROL STRUCTURE
FES=FLARED END SECTION
SS=STAINLESS STEEL
8. EXISTING GRADES SHOWN ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE SITE CONTRACTOR PRIOR TO EARTHWORK.
9. CONTRACTOR TO PERFORM VIDEO INSPECTION TO VERIFY CONDITION OF ALL EXISTING DRAINAGE PIPES AND STRUCTURES TO REMAIN (INCLUDING PIPES RUNNING INTO AND OUT OF BUILDING). CONTRACTOR TO REPAIR OR REPLACE PIPE OR STRUCTURES AS DIRECTED IF DEEMED TO BE IN POOR CONDITION BY OWNER OR ENGINEER (TYP).
10. STABILITY FOR RETAINING WALLS, INCLUDING GLOBAL STABILITY CALCULATIONS, MUST BE ANALYZED BY THE RETAINING WALL DESIGN ENGINEER OF RECORD AND SIGNED AND SEALED BY AN ACTIVE CIPROFESSIONAL ENGINEER
11. STABILITY FOR ALL SLOPES GREATER THAN 3:1 MUST BE ANALYZED BY THE GEOTECHNICAL DESIGN ENGINEER OF RECORD, INCLUDING CALCULATIONS SIGNED AND SEALED BY AN ACTIVE CIPROFESSIONAL ENGINEER
12. ALL SIDEWALKS TO HAVE A MAXIMUM 2% CROSS SLOPE

1. ALL PROPOSED STORM DRAINAGE PIPING TO UTILIZE WATER-TIGHT JOINTS.
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4. ALL REQUIRED STORM LATERALS SERVING THE BUILDING SHALL BE COORDINATED AND CONSTRUCTED TO WITHIN FIVE FEET OF EACH BUILDING LATERAL ENTRANCE LOCATION AT THE INVERTS NOTED. ANY NECESSARY EXTENSIONS, RELOCATIONS, OR CORRECTIONS WITHIN FIVE FEET OF THE BUILDING NECESSARY TO COMPLETE CONNECTION OF LATERALS TO THE BUILDINGS SHALL BE MADE BY THE BUILDING CONTRACTOR.
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10. STABILITY FOR RETAINING WALLS, INCLUDING GLOBAL STABILITY CALCULATIONS, MUST BE ANALYZED BY THE RETAINING WALL DESIGN ENGINEER OF RECORD AND SIGNED AND SEALED BY AN ACTIVE CPT PROFESSIONAL ENGINEER
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12. ALL SIDEWALKS TO HAVE A MAXIMUM 2% CROSS SLOPE

1	2	3
	4	5

1. BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY LANGAN, AND DATED 9 JULY 2021.
2. SITE IMPROVEMENTS INCORPORATED INTO THE SURVEY TAKEN FROM A PLAN ENTITLED "SITE PLAN" PREPARED BY LANGAN, DATED 15 OCTOBER 2021.
3. THE SITE IS LOCATED IN ZONE X, AN AREA OF MINIMAL FLOODING PER FIRM MAP 09009C0438H, EFFECTIVE DECEMBER 17, 2010.
4. PROPOSED BUILDING FOOTPRINT RECEIVED ELECTRONICALLY FROM ITAC CORPORATION DATED SEPTEMBER 2025.

LEGEND		
	EXISTING	PROPOSED
PROPERTY LINE		
STORM LINE		
STORM MANHOLE		
CATCH BASIN		
MAJOR CONTOUR		
MINOR CONTOUR		
SPOT ELEVATION		

PROPERTY LINE		
STORM LINE		
STORM MANHOLE		
CATCH BASIN		
MAJOR CONTOUR		
MINOR CONTOUR		
SPOT ELEVATION		



Revisions



Project

WEST HAVEN CONNECTICUT

Drawing Title

Project No.	Drawing No.
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140324701

Date	
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09/22/2025 CC101

Drawn By	CD/01
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IAD

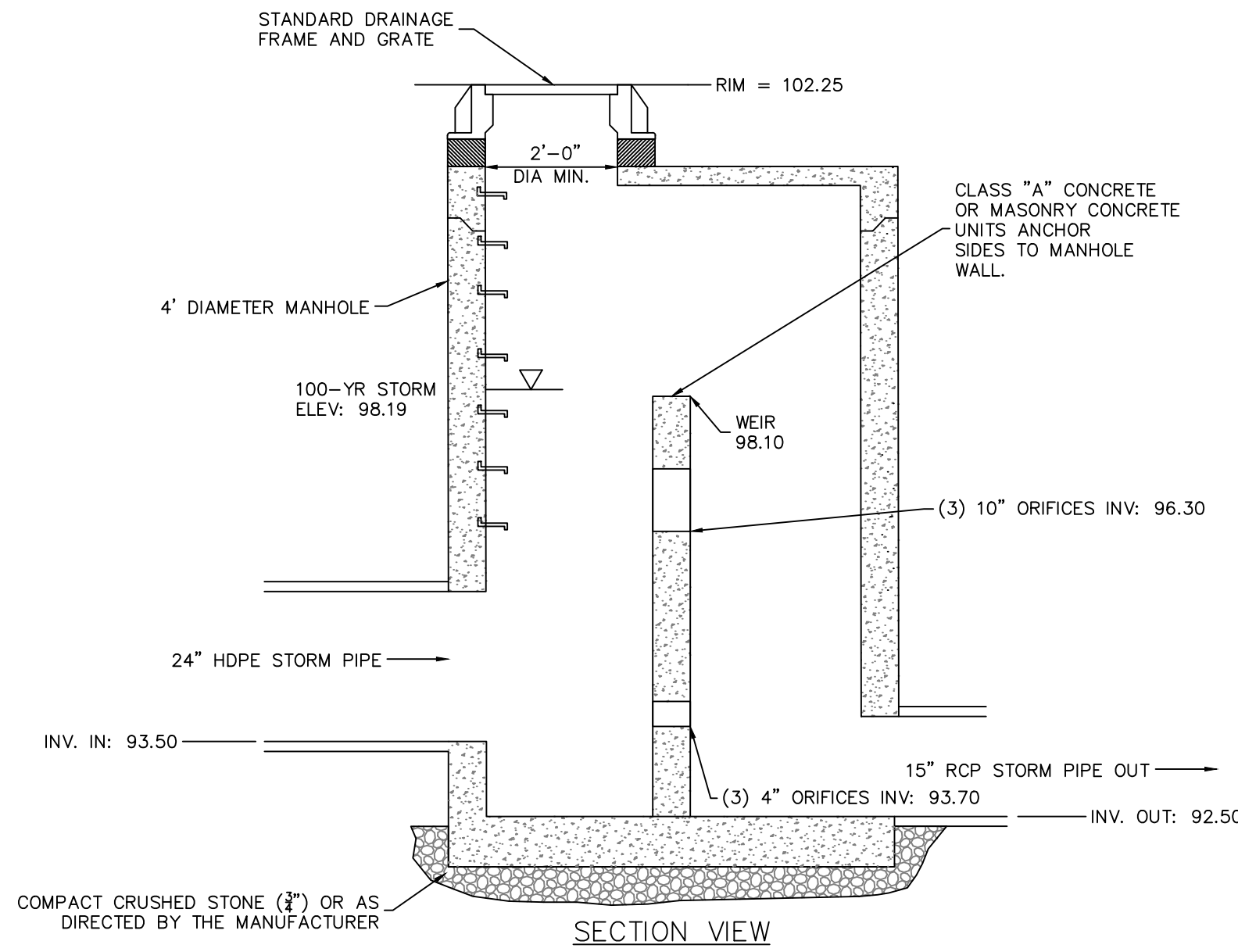
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Sheet **6** of **16**

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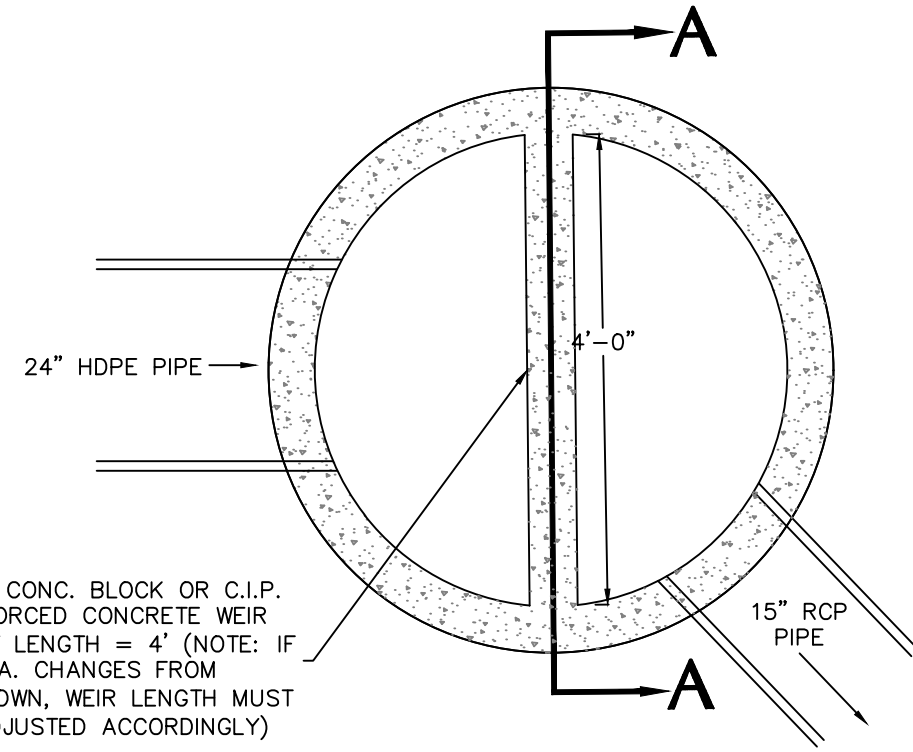
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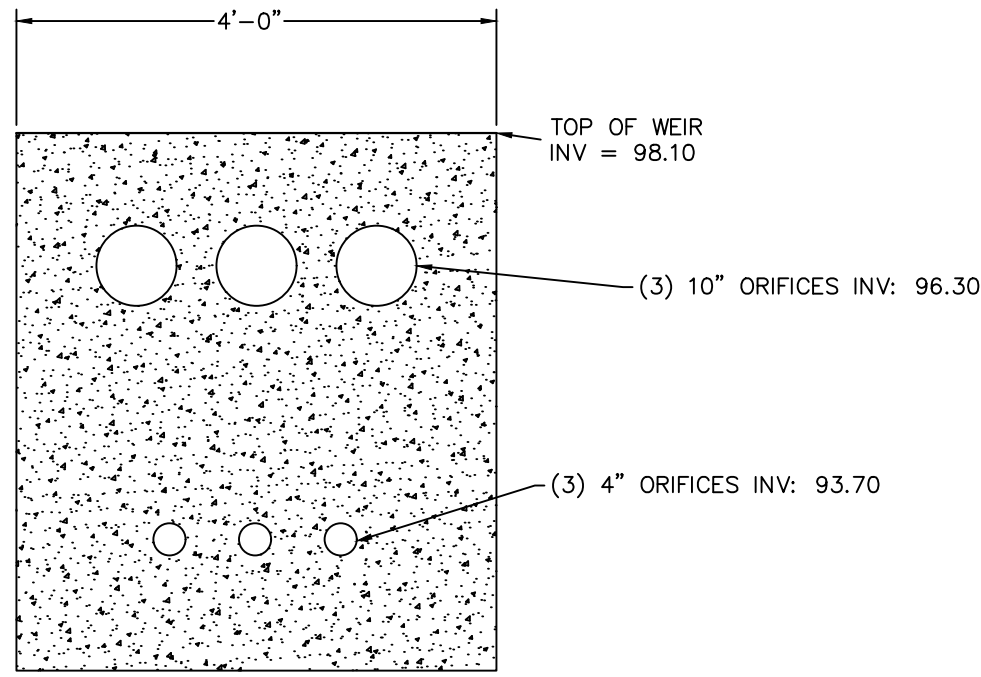
NOTE:
1. THESE DETAILS REPRESENT A MODIFICATION OF A STANDARD 48" MANHOLE FOR USE IN DIVERTING STORMWATER OUT OF THE UNDERGROUND DETENTION SYSTEM. SEE MANHOLE DETAIL FOR STANDARD DIMENSIONS AND NOTES.

OUTLET CONTROL STRUCTURE (OCS-101)

N.T.S.

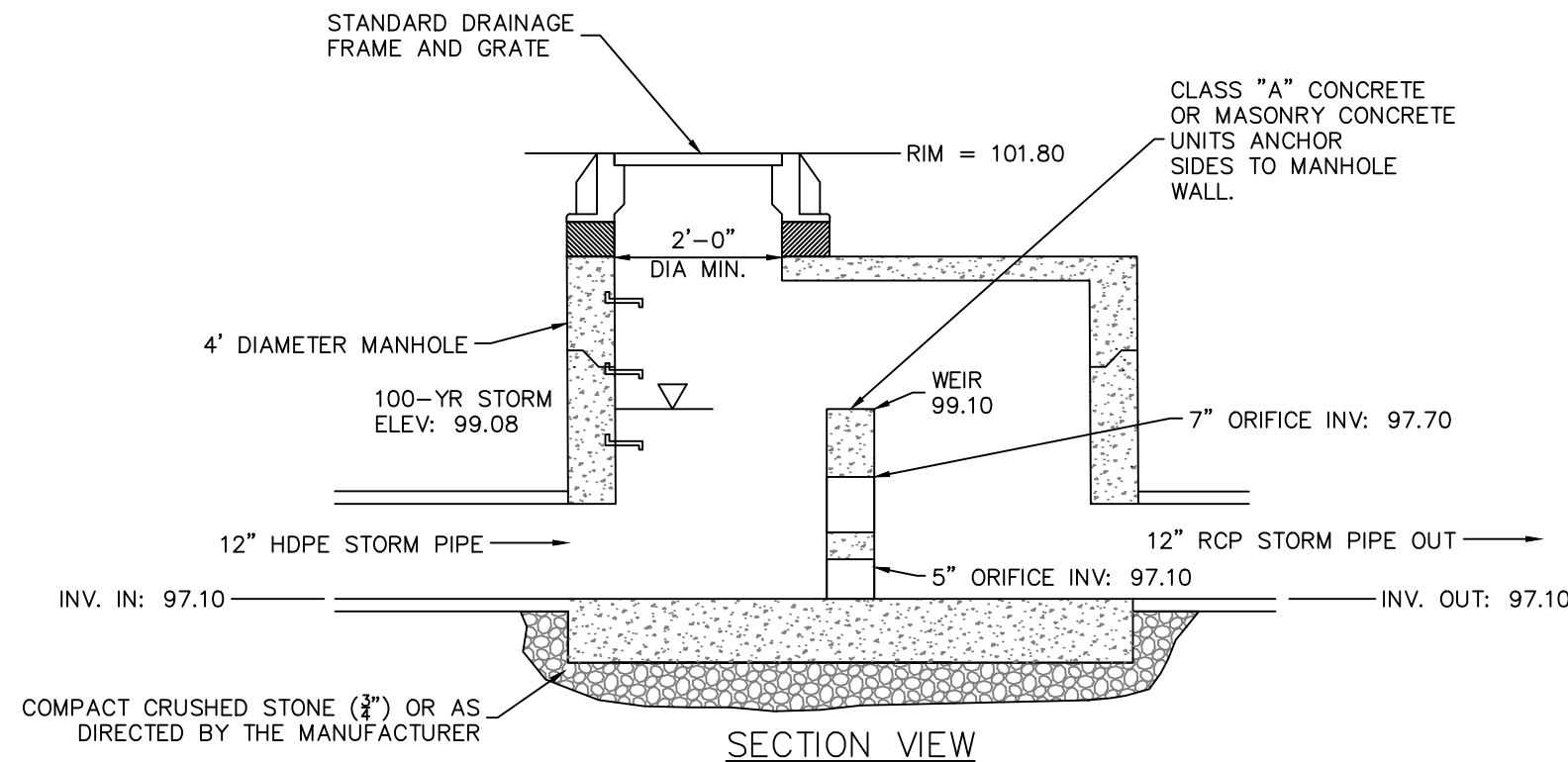


PLAN VIEW



SECTION A-A

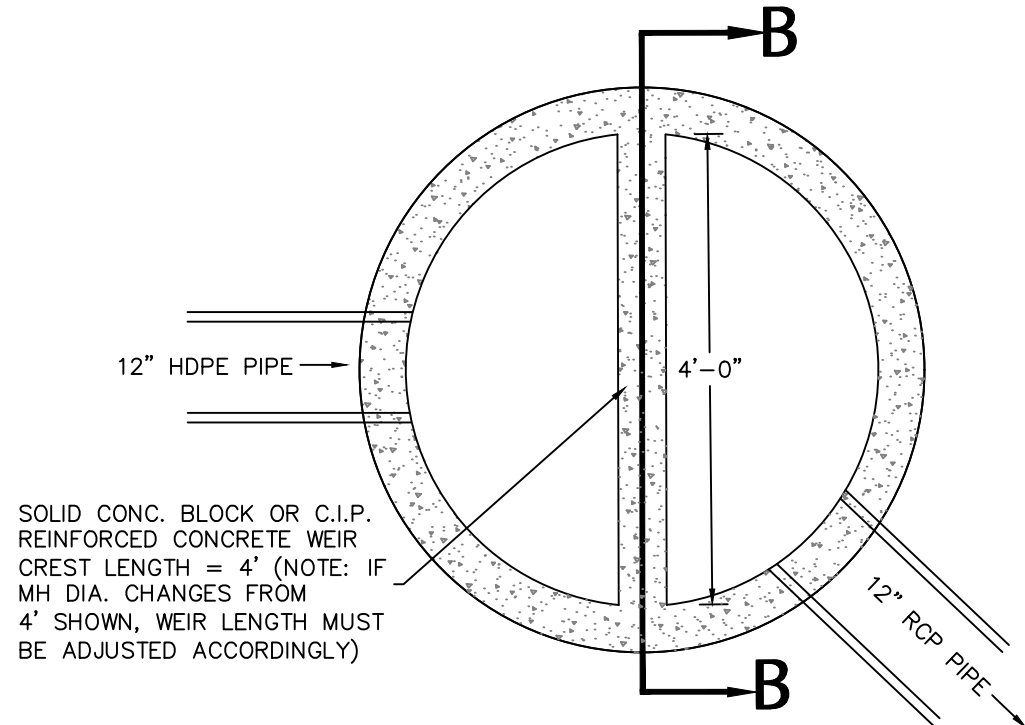
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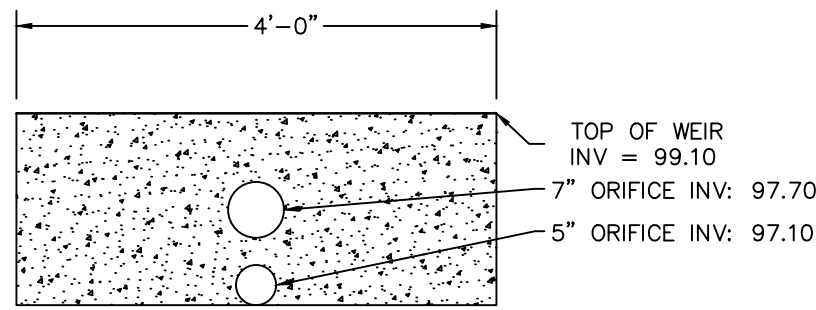
NOTE:
1. THESE DETAILS REPRESENT A MODIFICATION OF A STANDARD 48" MANHOLE FOR USE IN DIVERTING STORMWATER OUT OF THE UNDERGROUND DETENTION SYSTEM. SEE MANHOLE DETAIL FOR STANDARD DIMENSIONS AND NOTES.

OUTLET CONTROL STRUCTURE (OCS-201)

N.T.S.

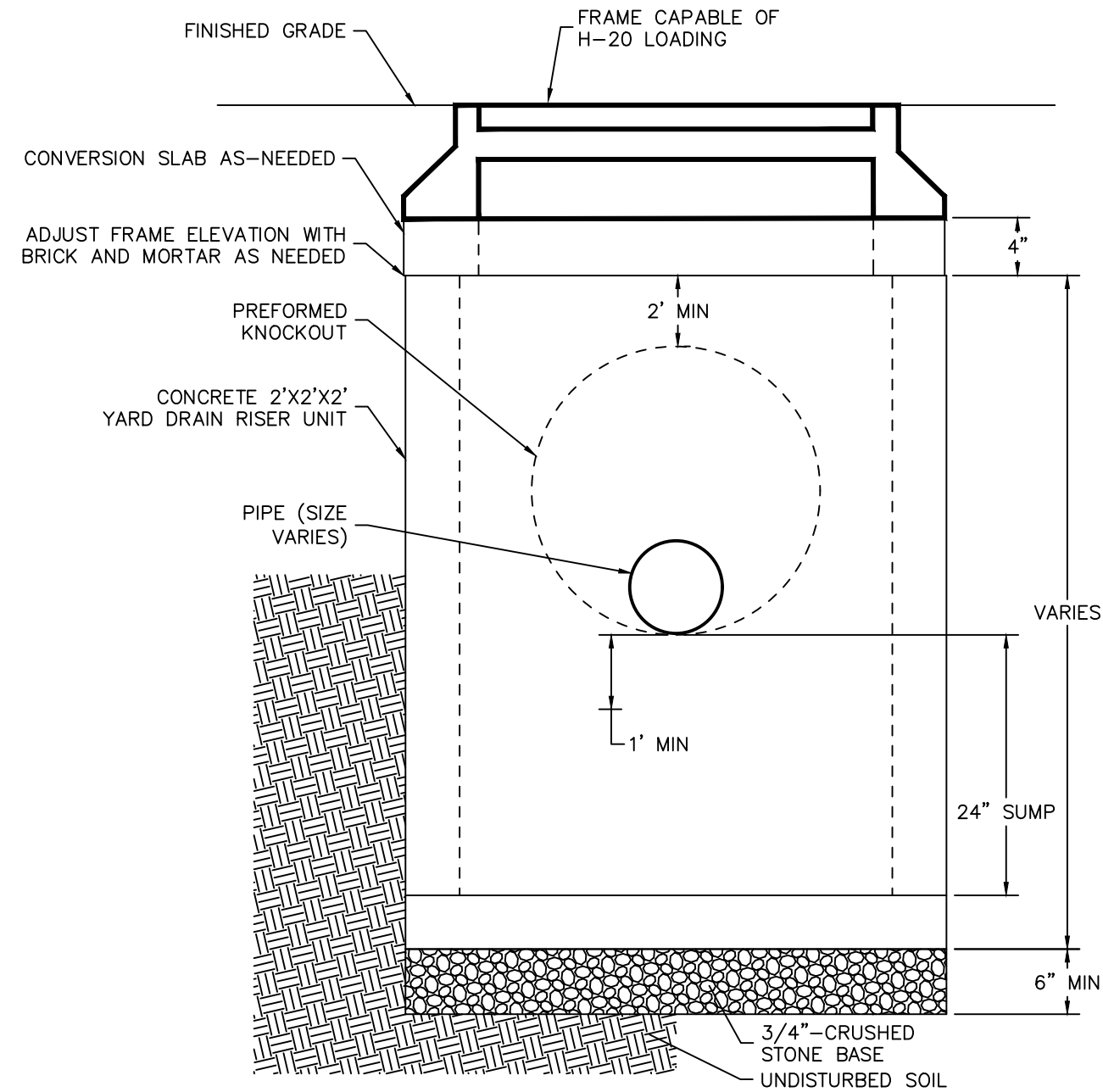


PLAN VIEW



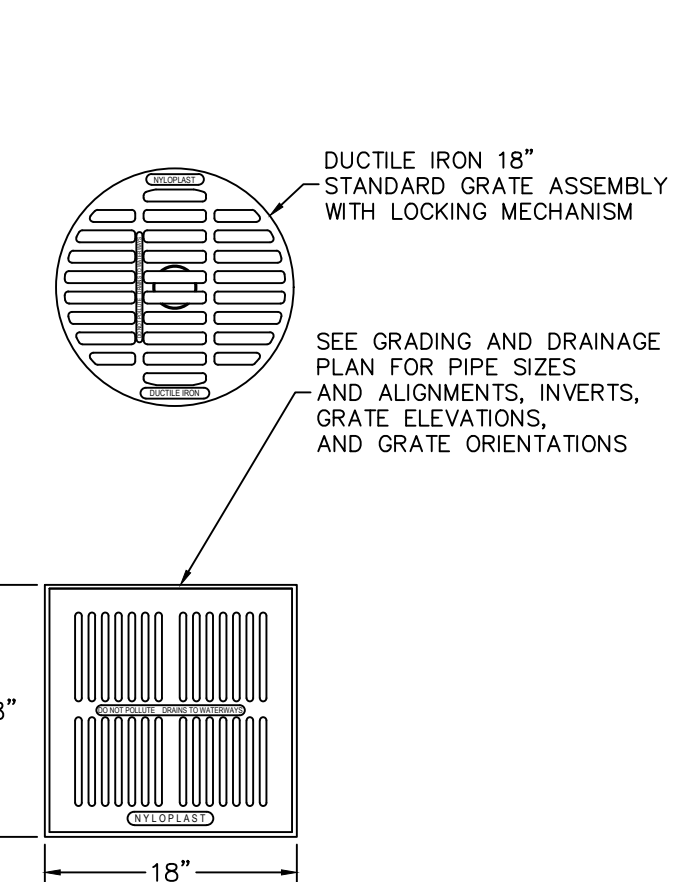
SECTION B-B

4



YARD DRAIN

N.T.S.

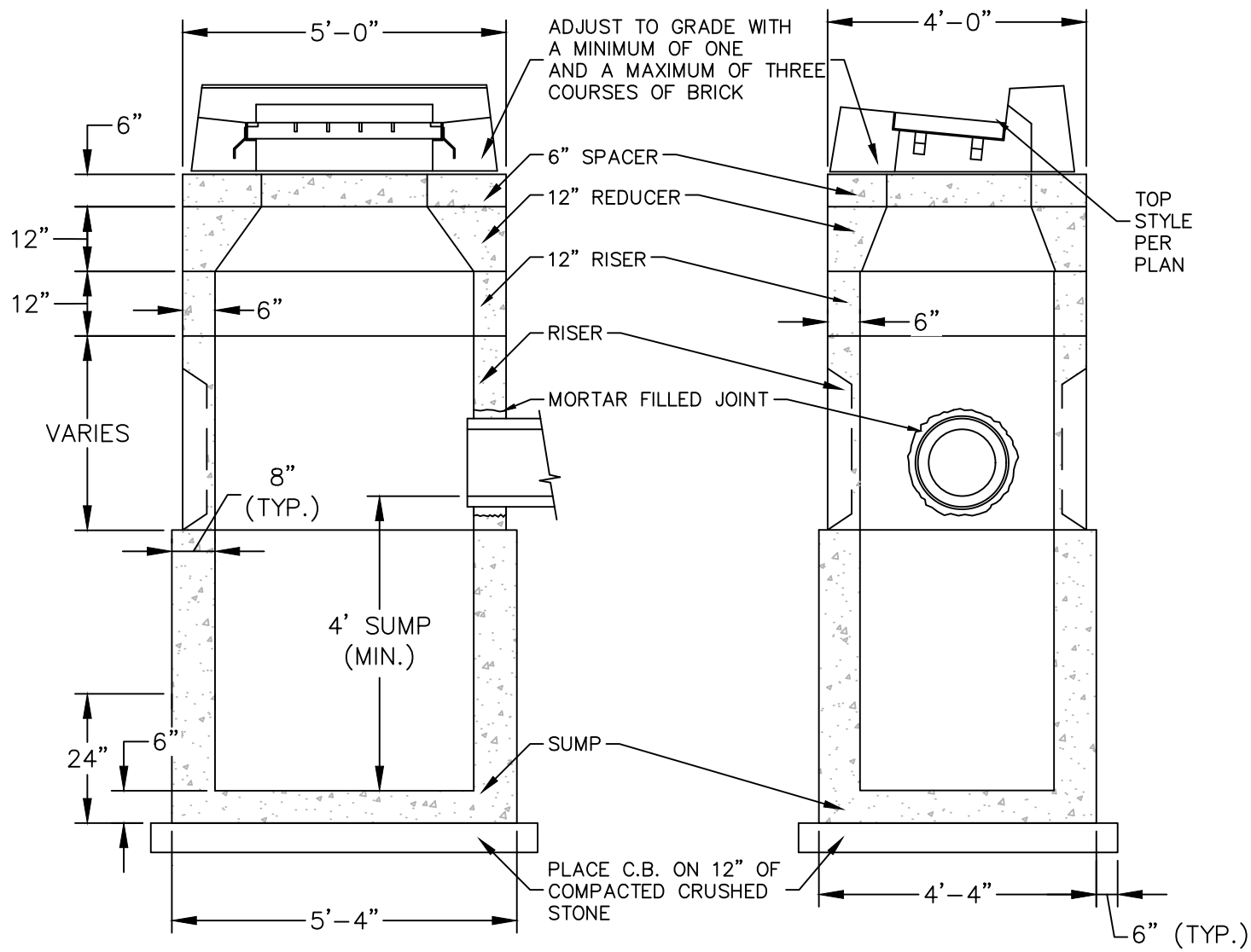


GRATE PLAN VIEW

CONVERSION SLAB PLAN VIEW

NOTES:
1. GRATES SHALL BE ROUND IN LAWN/FIELD AREAS AND SQUARE IN HARDSCAPE AREAS.
2. NEEMAH ADA COMPLIANT TYPE '12' GRATES OR APPROVED EQUAL (MAXIMUM SLOT OPENING 1/2" MAX.) SHALL BE USED IN ALL ADA ACCESSIBLE AREAS AND WHERE SPECIFIED. CONTRACTOR TO CONFIRM WHETHER OR NOT A GRATE IS LOCATED WITHIN AN ACCESSIBLE ROUTE.
3. GRATES SHALL BE CAPABLE OF H20 LOADING.
4. ALL INLET GRADES TO BE ADA COMPLIANT.

5

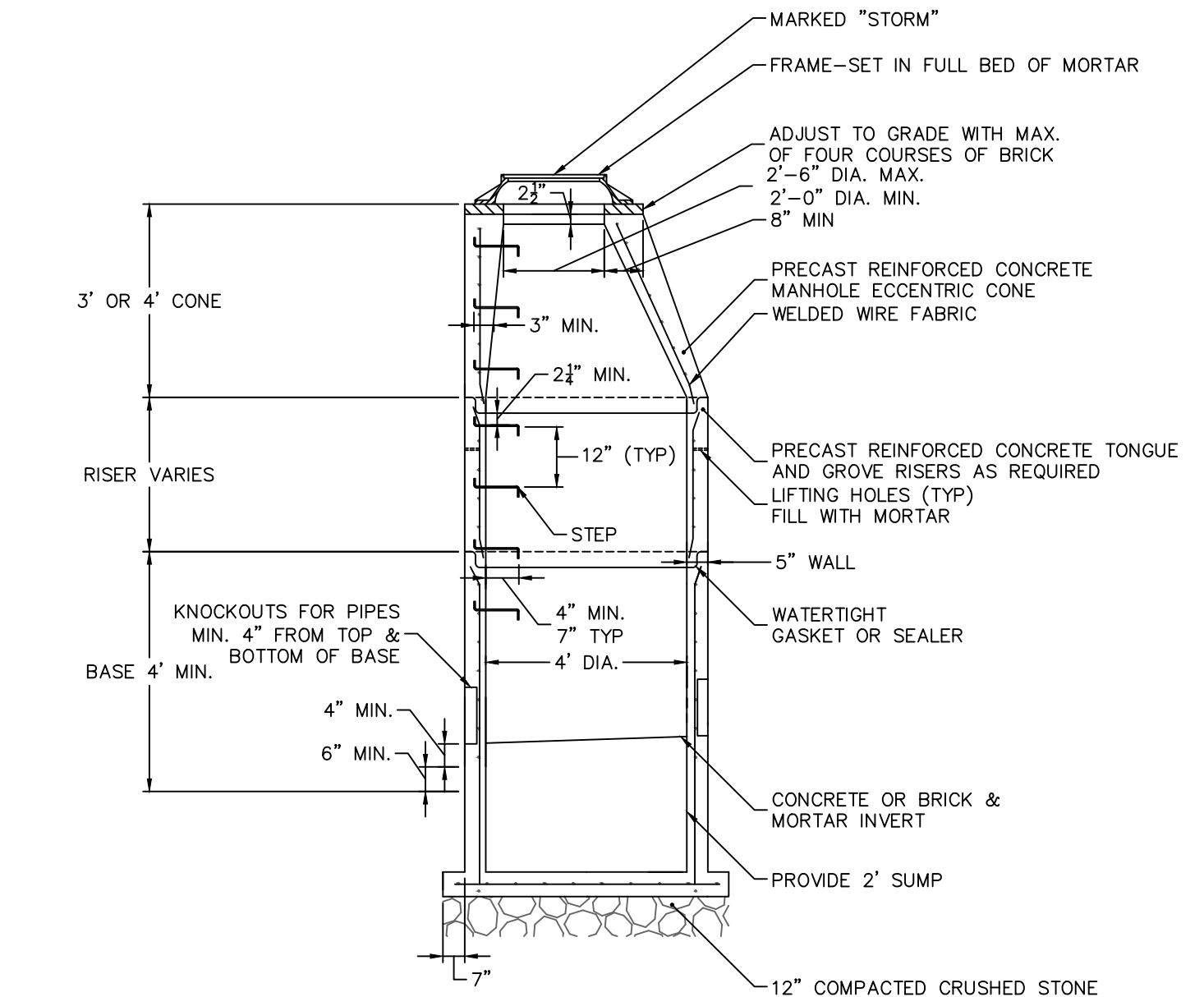


NOTES:
1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN HS-20 TRUCK LOAD.
2. ALL JOINTS TO BE MORTARED.
3. CATCH BASIN SHALL CONFORM TO ASTM C478.
4. PROVIDE FLOODPROOF GRATES

CATCH BASIN

N.T.S.

3

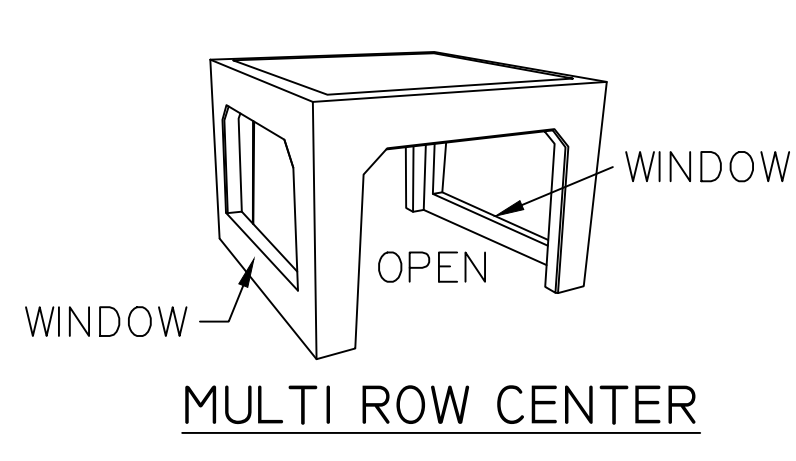


NOTES:
1. 5' OR 6' DIA. PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5' OR 6' BASES AS DIRECTED BY THE ENGINEER. WALL THICKNESS TO INCREASE 1" FOR EACH 1" OF INSIDE DIAMETER INCREASE. MINIMUM 6" WALL DIMENSION SHOULD BE PROVIDED BETWEEN ALL PIPES.
2. FRAME DIAMETER OF 3'-3" WITH 4" FLANGE MUST BE USED WHEN THE TOP DIA. OF THE PRECAST CONE IS LESS THAN 3'-6". ALL OTHER FRAME DIMENSIONS ARE TO REMAIN THE SAME.
3. MINIMUM CONCRETE COMPRESSIVE STRENGTH OF F'c = 4000 PSI SHALL BE OBTAINED PRIOR TO SHIPPING.
4. MANHOLE, FRAME, AND COVER SHALL BE RATED FOR HS-20 LOADING (STANDARD TRUCK LOAD)

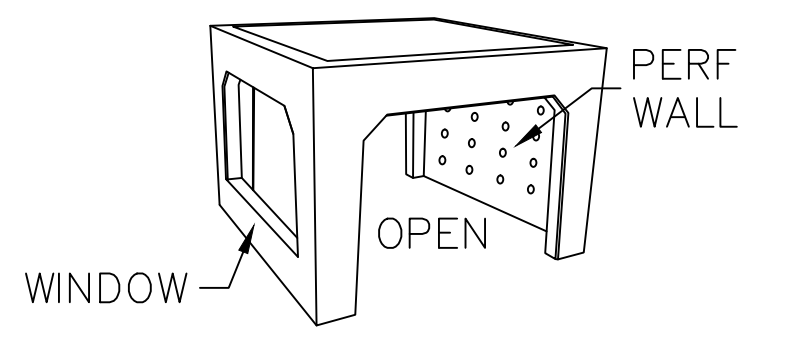
STORM MANHOLE

N.T.S.

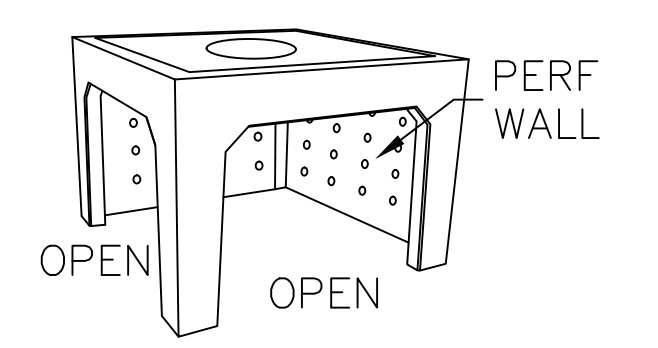
Date	Description	No.
Revisions		
		
LANGAN		
Langan CT, Inc. 555 Long Wharf Drive, 9th Floor New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project		
MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT		
Drawing Title		
GRADING & DRAINAGE DETAILS I		
Project No.		Drawing No.
140324701		CG501
Date		
09/22/2025		
Drawn By		
JAD		Sheet 7 of 16
Checked By		
BP		



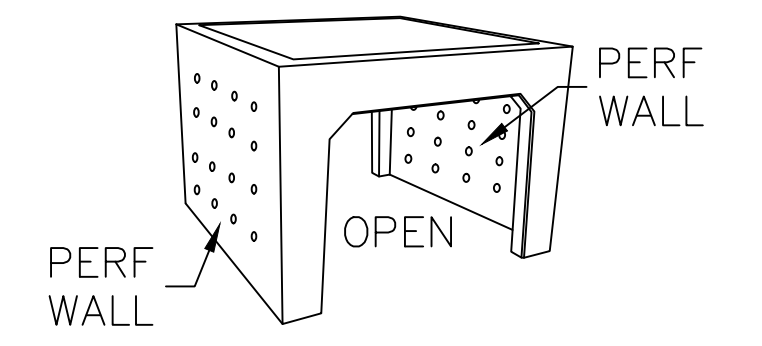
MULTI ROW CENTER



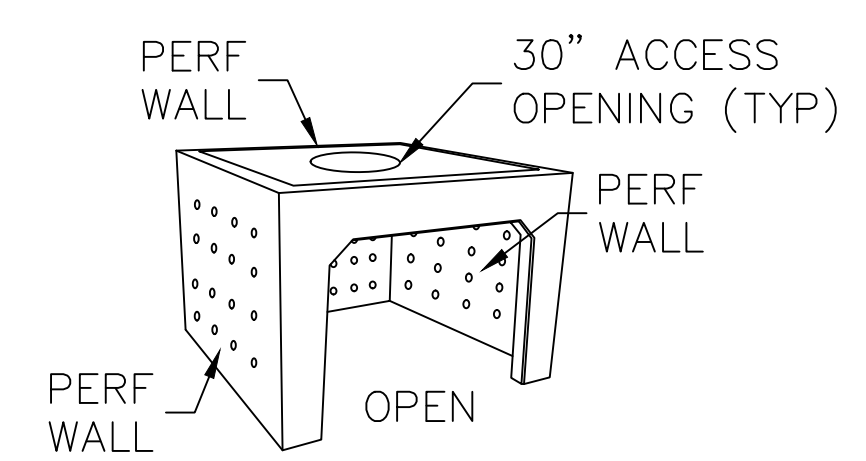
MULTI ROW PERIMETER



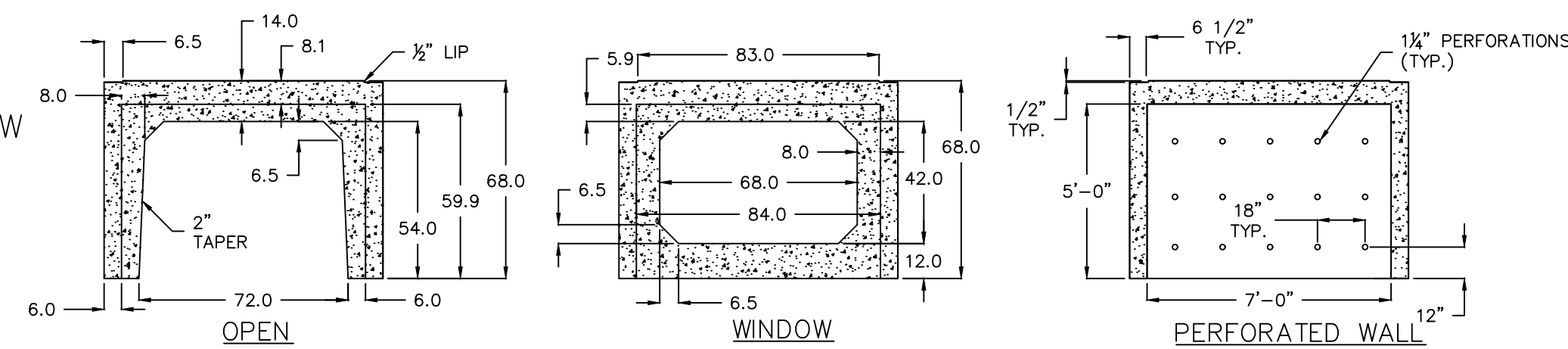
MULTI ROW CORNER



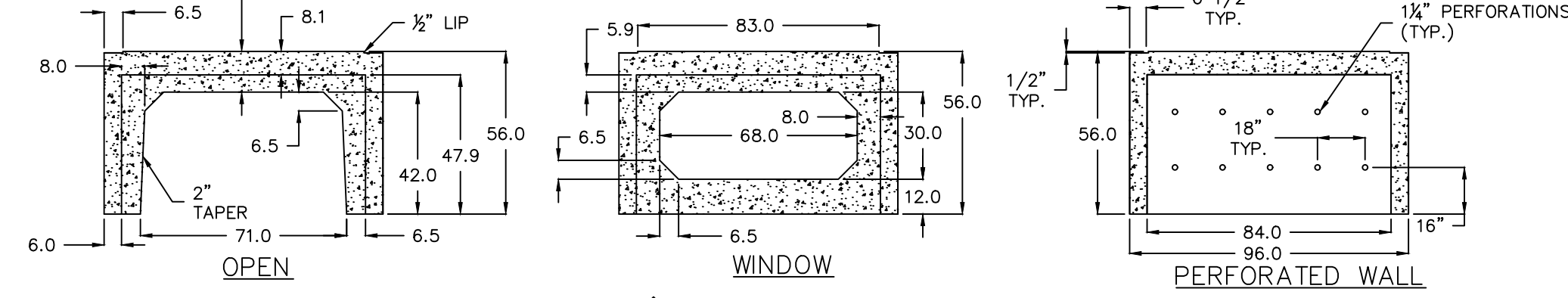
SINGLE ROW CENTER



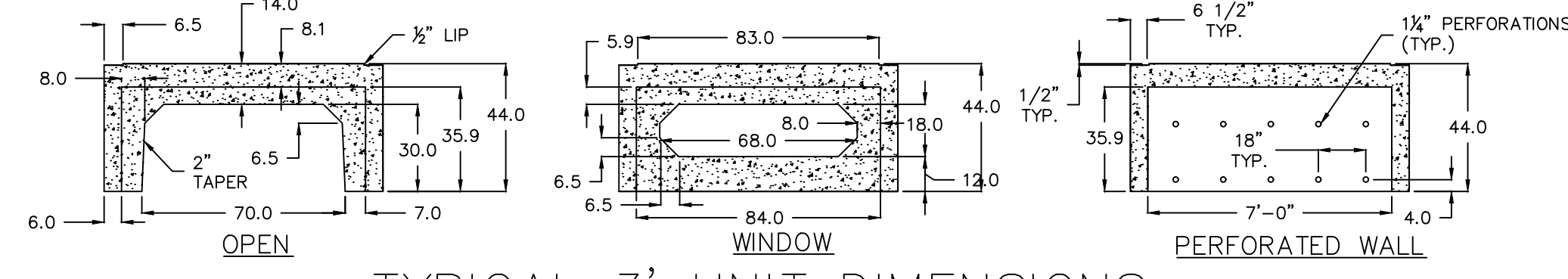
SINGLE ROW END



TYPICAL 5' UNIT DIMENSIONS



TYPICAL 4' UNIT DIMENSIONS



TYPICAL 3' UNIT DIMENSIONS

VOLUME CAPACITY CALCULATION
TARGET VOLUME: _____

*TOP RETAIN-IT MODULE HEIGHT:
"A" MIDDLE: _____ (UNITS) x _____ CU.FT. PER-UNIT = _____ CU.FT.
"B" SIDE: _____ (UNITS) x _____ CU.FT. PER-UNIT = _____ CU.FT.
"C" CORNER: _____ (UNITS) x _____ CU.FT. PER-UNIT = _____ CU.FT.
TOTAL UNITS: _____ TOTAL VOLUME = _____ CU.FT.

STONE STORAGE (40% VOID)
BASE: _____ THICK ROCK SIDEWALL _____
TOTAL VOLUME: _____ LONG x _____ WIDE x _____ THICK = _____ CU.FT.
x VOID RATIO _____ x (40% VOID) = _____ CU.FT.

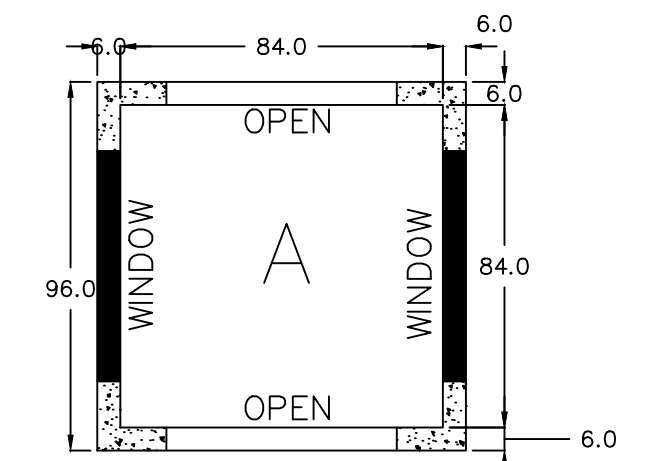
SIDE WALL: _____ THICK ROCK SIDEWALL _____
TOTAL VOLUME: _____ LONG x _____ WIDE x _____ THICK = _____ CU.FT.
x VOID RATIO _____ x (40% VOID) = _____ CU.FT.

TOTAL CAPACITY
TALL RETAIN-IT _____ CU.FT.
BASE STONE _____ CU.FT.
SIDEWALL STONE _____ CU.FT.

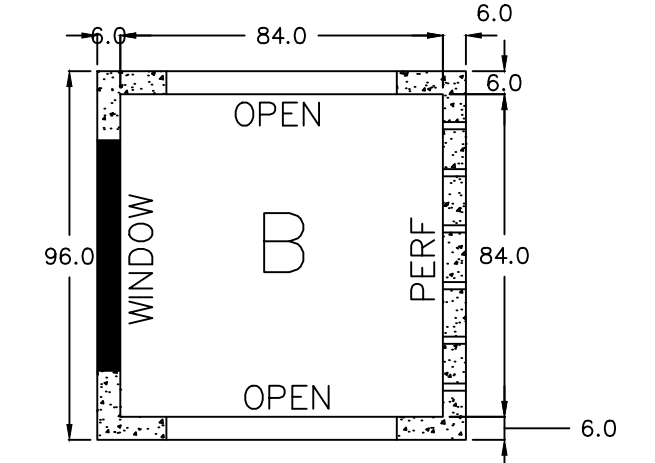
STORAGE CAPACITY
TOTAL _____ CU.FT.

*SEE DESIGN / DOCUMENT LIBRARY / STORAGE VOLUMES
AND WEIGHTS BY MODULAR HEIGHT FOR SELECT
CALCULATION DATA

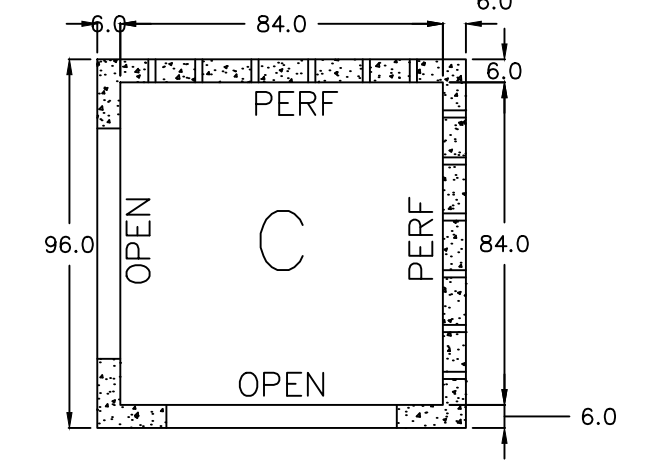
NOTE: SEE CALCULATOR AND DESIGN TOOL © RETAIN-IT.COM
RETAIN-IT.COM/DESIGN/DESIGN-TOOLS



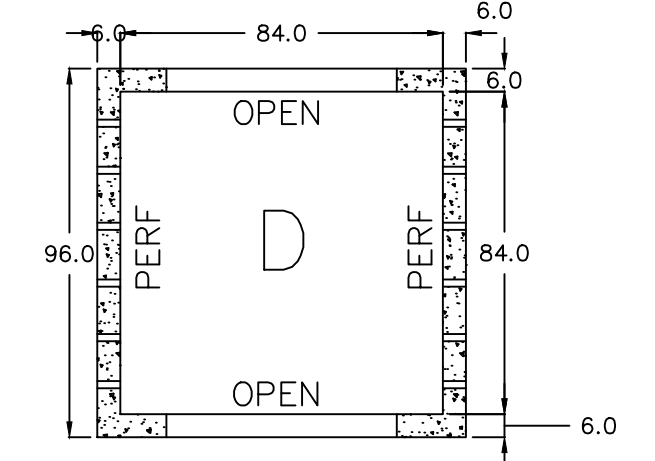
MULTI ROW CENTER



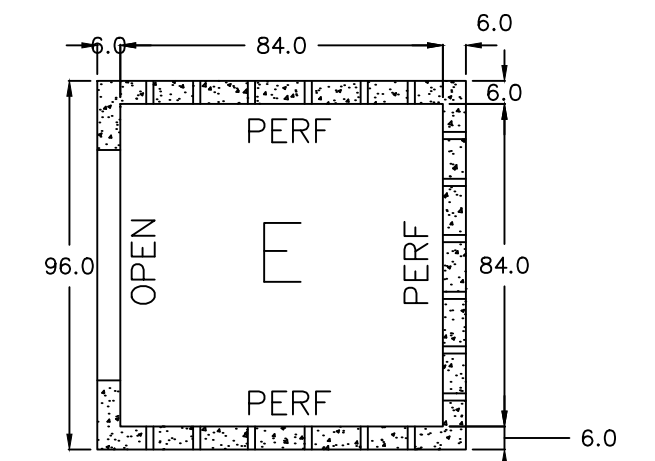
MULTI ROW PERIMETER



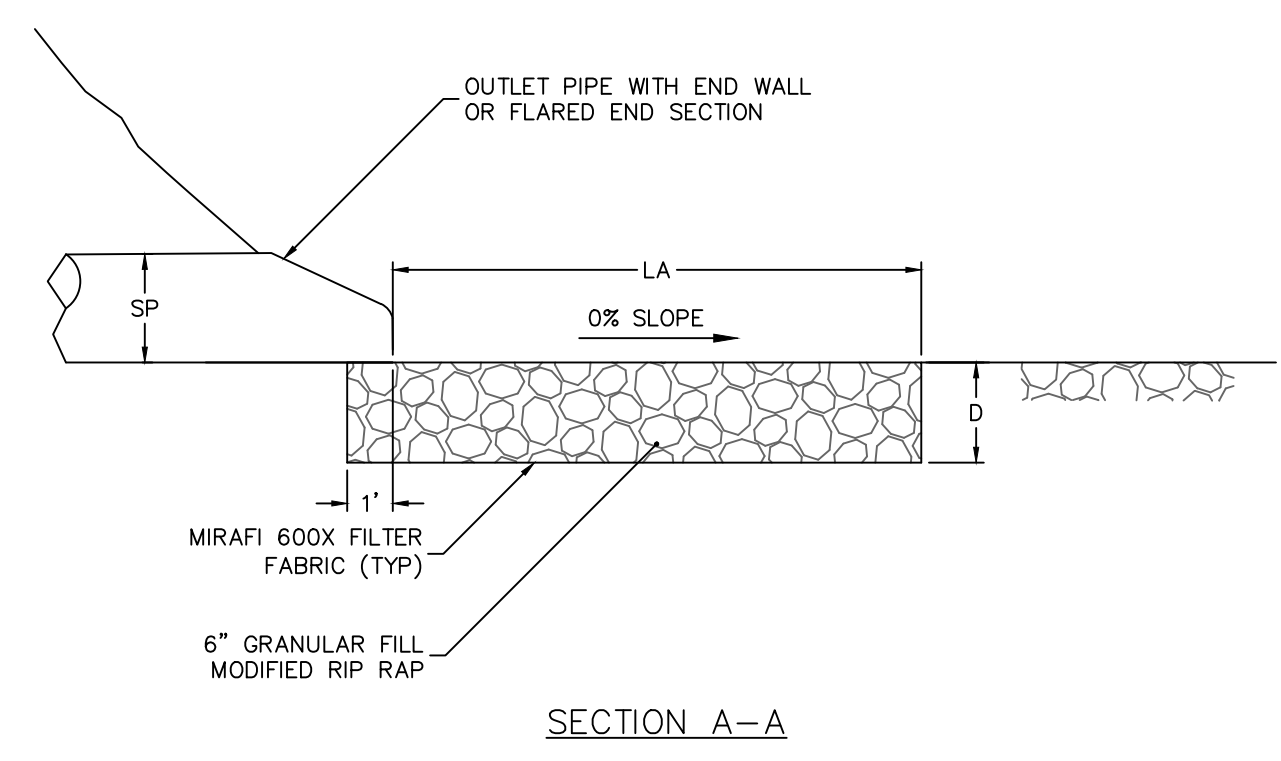
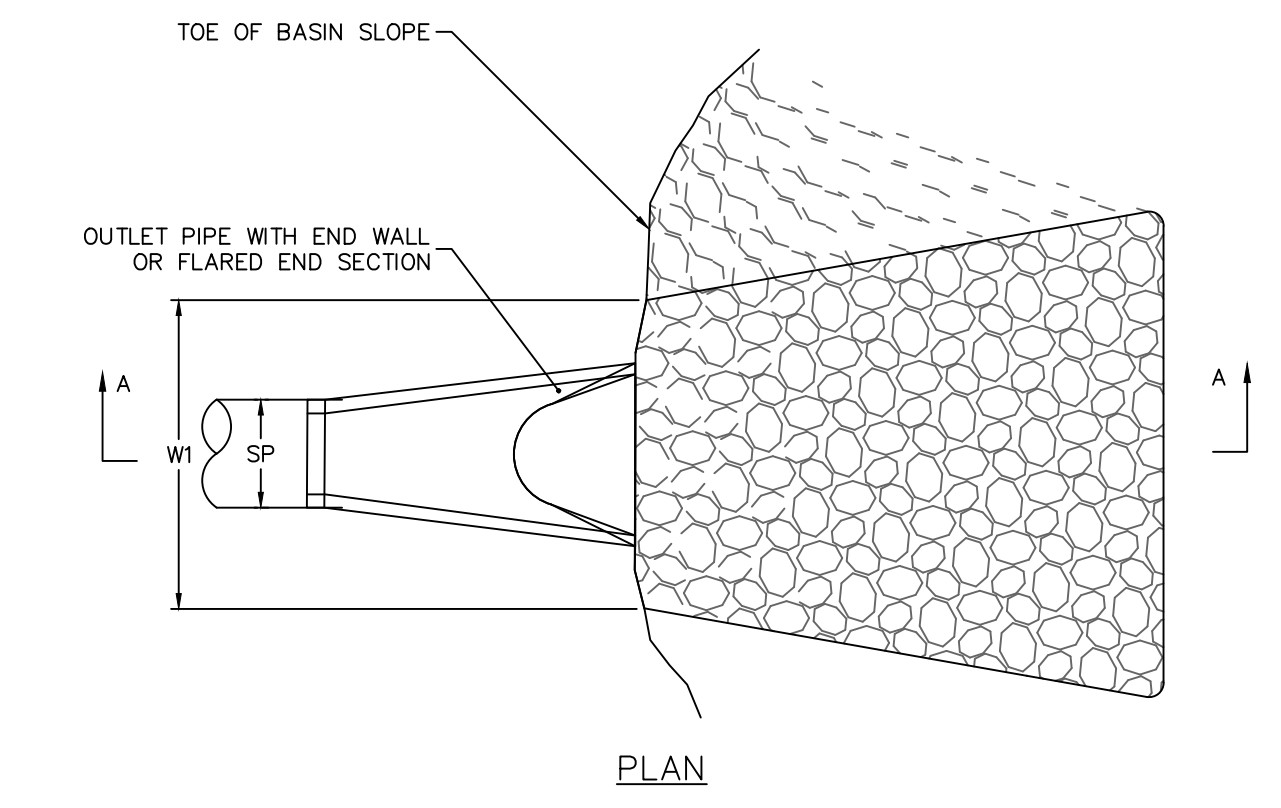
MULTI ROW CORNER



SINGLE ROW CENTER

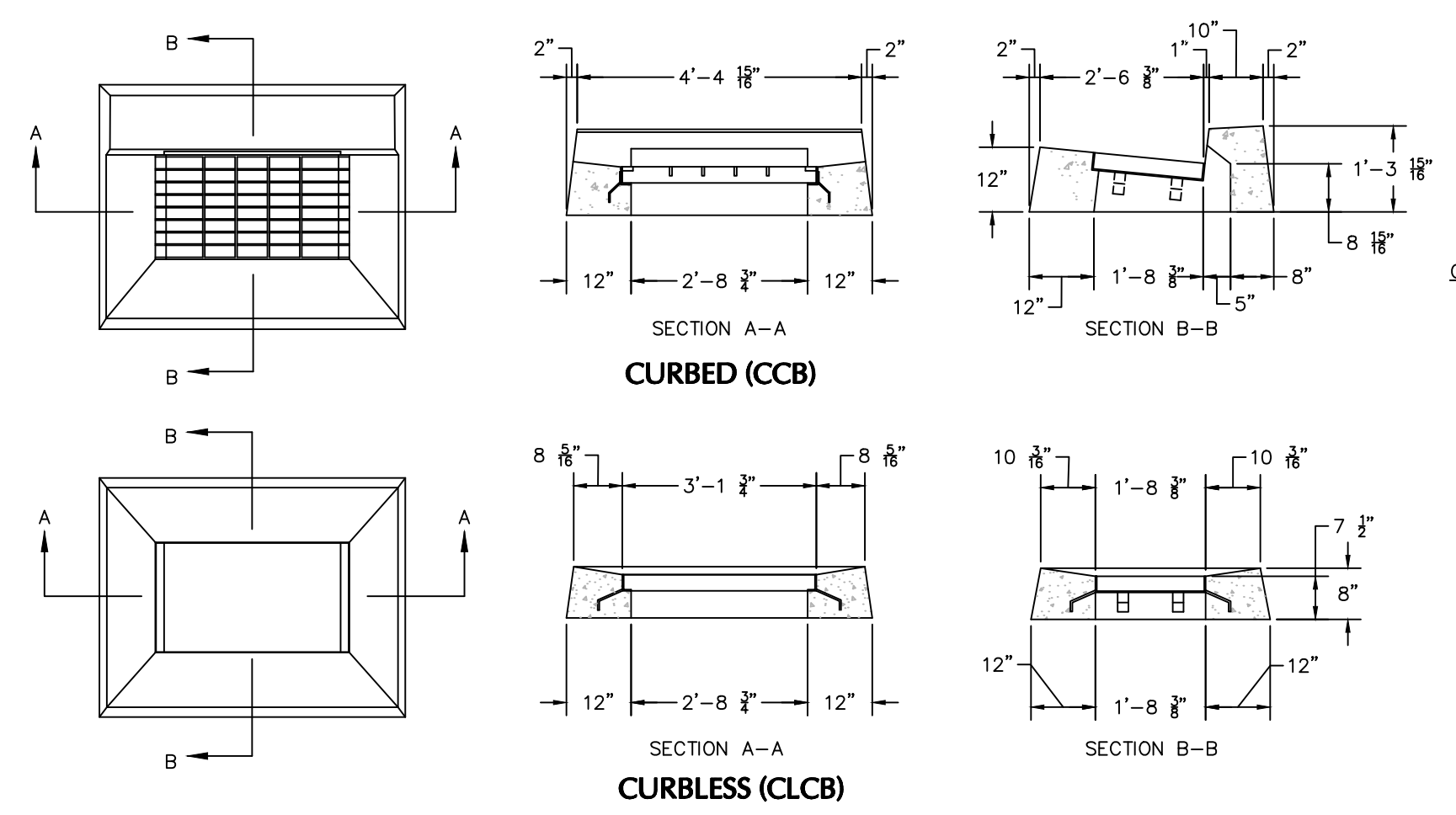


SINGLE ROW END

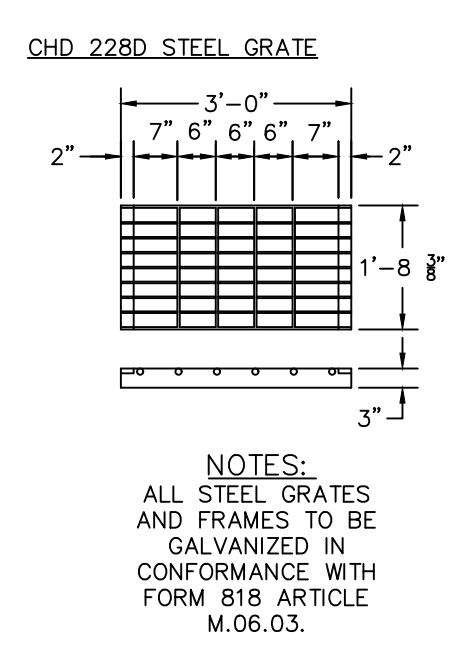


RIPRAP APRON WITH
FLARED END SECTION

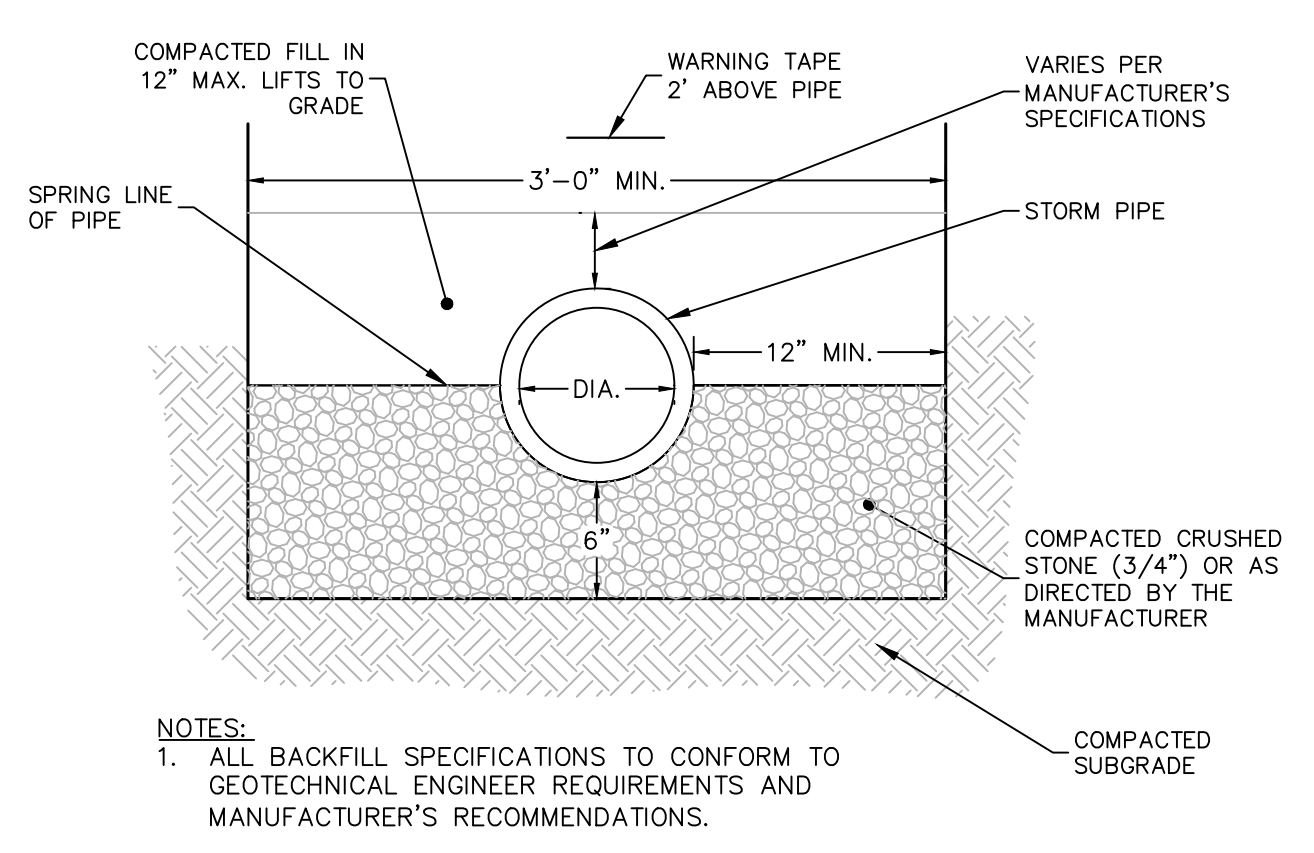
RETAIN-IT 4.5' AND 5.0' UNDERGROUND DETENTION SYSTEM (OR APPROVED EQUAL)



CATCH BASIN TOP

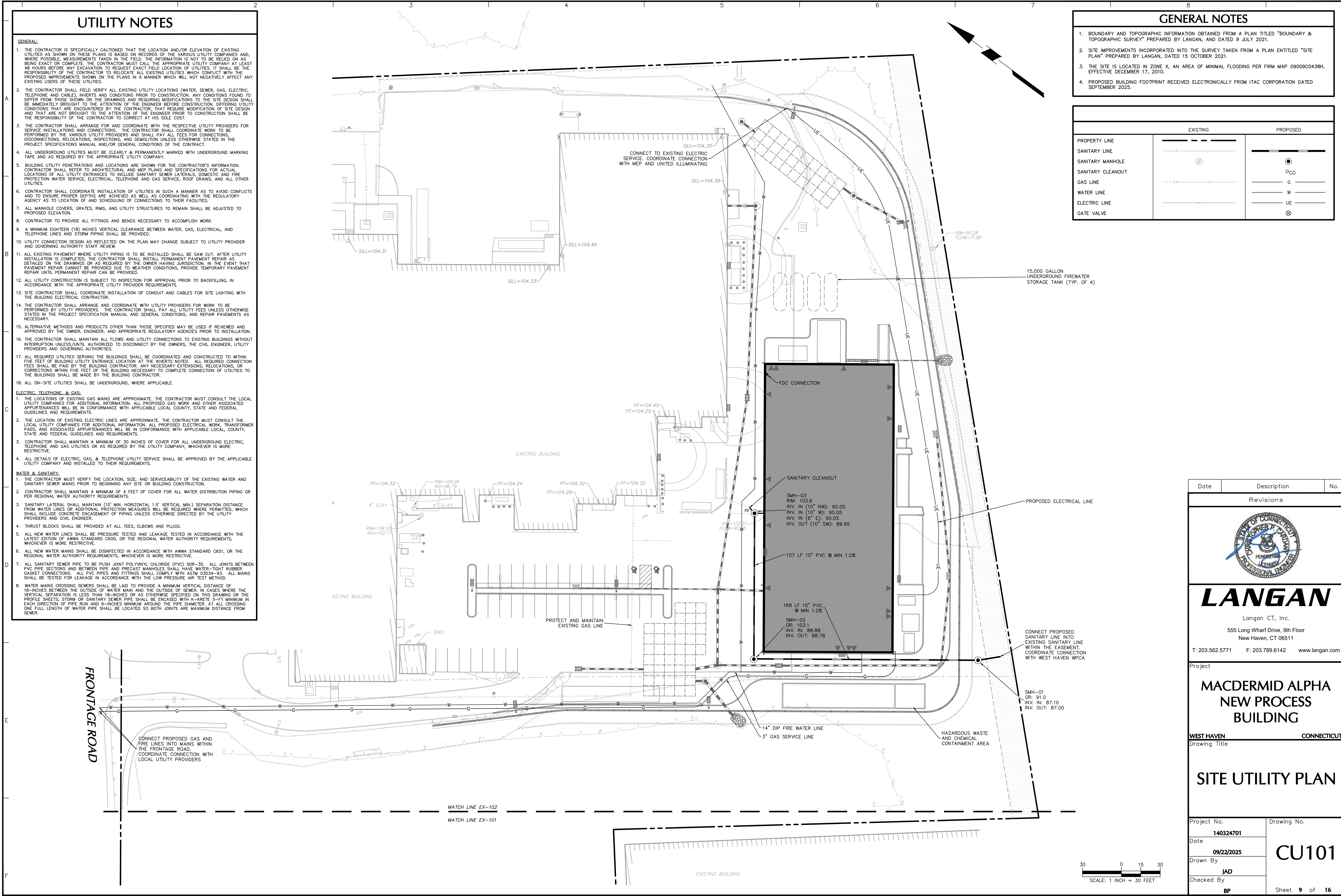


NOTES:
ALL STEEL GRATES
AND FRAMES TO BE
GALVANIZED IN
CONFORMANCE WITH
FORM 518 ARTICLE
M.06.03.



STORM PIPE BEDDING

Date	Description	No.
Revisions		
		
LANGAN		
Langan CT, Inc. 555 Long Wharf Drive, 9th Floor New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT Drawing Title GRADING & DRAINAGE DETAILS II		
Project No. 140324701	Drawing No. CG502	
Date 09/22/2025		
Drawn By JAD		
Checked By BP		
Sheet 8 of 16		



UTILITY NOTES

GENERAL

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS (WATER, SEWER, GAS, ELECTRIC, TELEPHONE AND CABLE), INVERTS AND CONDITIONS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN ON THE DRAWINGS AND REQUIRING MODIFICATIONS TO THE SITE DESIGN SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONSTRUCTION. DIFFERING UTILITY CONDITIONS THAT ARE ENCOUNTERED BY THE CONTRACTOR, THAT REQUIRE MODIFICATION OF SITE DESIGN AND THAT ARE NOT BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT AT HIS SOLE COST.
- THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY PROVIDERS FOR SERVICE INSTALLATIONS AND CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY PROVIDERS AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
- ALL UNDERGROUND UTILITIES MUST BE CLEARLY & PERMANENTLY MARKED WITH UNDERGROUND MARKING TAPE AND AS REQUIRED BY THE APPROPRIATE UTILITY COMPANY.
- BUILDING UTILITY PENETRATIONS AND LOCATIONS ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL REFER TO ARCHITECTURAL AND MEP PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE, ROOF DRAINS, AND ALL OTHER UTILITIES.
- CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION OF AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
- ALL MANHOLE COVERS, GRATES, RIMS, AND UTILITY STRUCTURES TO REMAIN SHALL BE ADJUSTED TO PROPOSED ELEVATION.
- CONTRACTOR TO PROVIDE ALL FITTINGS AND BENDS NECESSARY TO ACCOMPLISH WORK.
- A MINIMUM EIGHTEEN (18) INCHES VERTICAL CLEARANCE BETWEEN WATER, GAS, ELECTRICAL, AND TELEPHONE LINES AND STORM PIPING SHALL BE PROVIDED.
- UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
- ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT. AFTER UTILITY INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL INSTALL PERMANENT PAVEMENT REPAIR AS DETAILED ON THE DRAWINGS OR AS REQUIRED BY THE OWNER HAVING JURISDICTION. IN THE EVENT THAT PAVEMENT REPAIR CANNOT BE PROVIDED DUE TO WEATHER CONDITIONS, PROVIDE TEMPORARY PAVEMENT REPAIR UNTIL PERMANENT REPAIR CAN BE PROVIDED.
- ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
- SITE CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND CABLES FOR SITE LIGHTING WITH THE BUILDING ELECTRICAL CONTRACTOR.
- THE CONTRACTOR SHALL ARRANGE AND COORDINATE WITH UTILITY PROVIDERS FOR WORK TO BE PERFORMED BY UTILITY PROVIDERS. THE CONTRACTOR SHALL PAY ALL UTILITY FEES UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATION MANUAL AND GENERAL CONDITIONS, AND REPAIR PAVEMENTS AS NECESSARY.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNERS, THE CIVIL ENGINEER, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.
- ALL REQUIRED UTILITIES SERVING THE BUILDINGS SHALL BE COORDINATED AND CONSTRUCTED TO WITHIN FIVE FEET OF BUILDING UTILITY ENTRANCE LOCATION AT THE INVERTS NOTED. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE BUILDING CONTRACTOR, ANY NECESSARY EXTENSIONS, RELOCATIONS, OR CORRECTIONS WITHIN FIVE FEET OF THE BUILDING NECESSARY TO COMPLETE CONNECTION OF UTILITIES TO THE BUILDINGS SHALL BE MADE BY THE BUILDING CONTRACTOR.
- ALL ON-SITE UTILITIES SHALL BE UNDERGROUND, WHERE APPLICABLE.

ELECTRIC, TELEPHONE, & GAS:

- THE LOCATIONS OF EXISTING GAS MAINS ARE APPROXIMATE. THE CONTRACTOR MUST CONSULT THE LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION. ALL PROPOSED GAS WORK AND OTHER ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
- THE LOCATION OF EXISTING ELECTRIC LINES ARE APPROXIMATE. THE CONTRACTOR MUST CONSULT THE LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION. ALL PROPOSED ELECTRICAL WORK, TRANSFORMER PADS, AND ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 30 INCHES OF COVER FOR ALL UNDERGROUND ELECTRIC, TELEPHONE AND GAS UTILITIES OR AS REQUIRED BY THE UTILITY COMPANY, WHICHEVER IS MORE RESTRICTIVE.
- ALL DETAILS OF ELECTRIC, GAS, & TELEPHONE UTILITY SERVICE SHALL BE APPROVED BY THE APPLICABLE UTILITY COMPANY AND INSTALLED TO THEIR REQUIREMENTS.

WATER & SANITARY:

- THE CONTRACTOR MUST VERIFY THE LOCATION, SIZE, AND SERVICEABILITY OF THE EXISTING WATER AND SANITARY SEWER MAINS PRIOR TO BEGINNING ANY SITE OR BUILDING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4 FEET OF COVER FOR ALL WATER DISTRIBUTION PIPING OR PER REGIONAL WATER AUTHORITY REQUIREMENTS.
- SANITARY LATERAL SHALL MAINTAIN (10' MIN. HORIZONTAL 1.5' VERTICAL MIN.) SEPARATION DISTANCE FROM WATER LINES OR ADDITIONAL PROTECTION MEASURES WILL BE REQUIRED WHERE PERMITTED, WHICH SHALL INCLUDE CONCRETE ENCASMENT OF PIPING UNLESS OTHERWISE DIRECTED BY THE UTILITY PROVIDERS AND CIVIL ENGINEER.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL TEES, ELBOWS AND PLUGS.
- ALL NEW WATER LINES SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA STANDARD C600, OR THE REGIONAL WATER AUTHORITY REQUIREMENTS, WHICHEVER IS MORE RESTRICTIVE.
- ALL NEW WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651, OR THE REGIONAL WATER AUTHORITY REQUIREMENTS, WHICHEVER IS MORE RESTRICTIVE.
- ALL SANITARY SEWER PIPE TO BE PUSH JOINT POLYVINYL CHLORIDE (PVC) SDR-35. ALL JOINTS BETWEEN PVC PIPE SECTIONS AND BETWEEN PIPE AND PRECAST MANHOLES SHALL HAVE WATER-TIGHT RUBBER GASKET CONNECTIONS. ALL PVC PIPES AND FITTINGS SHALL COMPLY WITH ASTM D3034-93. ALL MAINS SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LOW PRESSURE AIR TEST METHOD.
- WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18-INCHES BETWEEN THE OUTSIDE OF WATER MAIN AND THE OUTSIDE OF SEWER. IN CASES WHERE THE VERTICAL SEPARATION IS LESS THAN 18-INCHES OR AS OTHERWISE SPECIFIED ON THIS DRAWING OR THE PROFILE SHEETS, STORM OR SANITARY SEWER PIPE SHALL BE ENCASED WITH 4-KNIFE 5-FT MINIMUM IN EACH DIRECTION OF PIPE RUN AND 6-INCHES MINIMUM AROUND THE PIPE DIAMETER. AT ALL CROSSING ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS ARE MAXIMUM DISTANCE FROM SEWER.

GENERAL NOTES

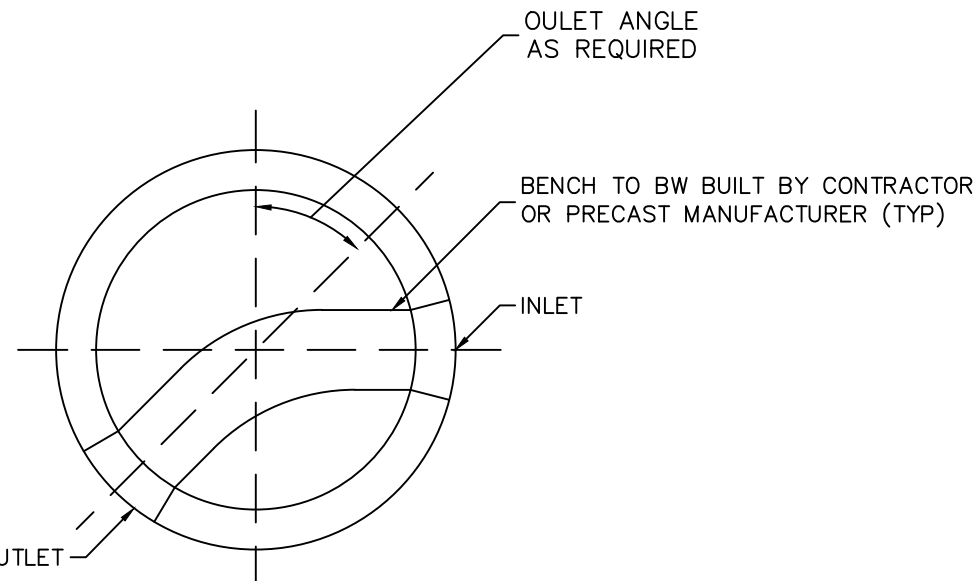
- BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY LANGAN, AND DATED 9 JULY 2021.
- SITE IMPROVEMENTS INCORPORATED INTO THE SURVEY TAKEN FROM A PLAN ENTITLED "SITE PLAN" PREPARED BY LANGAN, DATED 15 OCTOBER 2021.
- THE SITE IS LOCATED IN ZONE X, AN AREA OF MINIMAL FLOODING PER FIRM MAP 09008C0438H, EFFECTIVE DECEMBER 17, 2010.
- PROPOSED BUILDING FOOTPRINT RECEIVED ELECTRONICALLY FROM ITAC CORPORATION DATED SEPTEMBER 2025.

	EXISTING	PROPOSED
PROPERTY LINE	---	---
SANITARY LINE	---	---
SANITARY MANHOLE	⊙	⊙
SANITARY CLEANOUT	---	---
GAS LINE	---	---
WATER LINE	---	---
ELECTRIC LINE	---	---
GATE VALVE	---	---

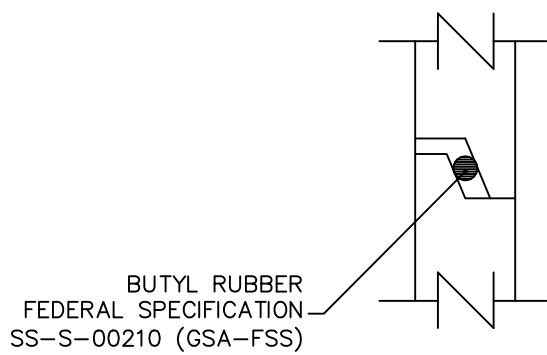
Date	Description	No.
Revisions		
		
LANGAN		
Langan CT, Inc. 555 Long Wharf Drive, 9th Floor New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project		
MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT		
Drawing Title		
SITE UTILITY PLAN		
Project No.	Drawing No.	
140324701	CU101	
Date	09/22/2025	
Drawn By	JAD	
Checked By	BP	
Sheet 9 of 16		

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SCALE: 1 INCH = 30 FEET

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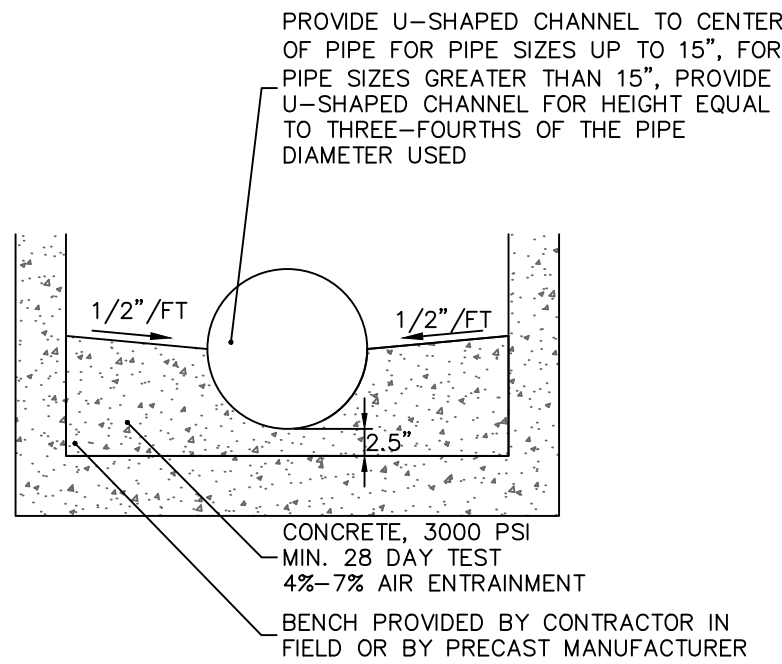
PLAN VIEW OF PRECAST MANHOLE BASE



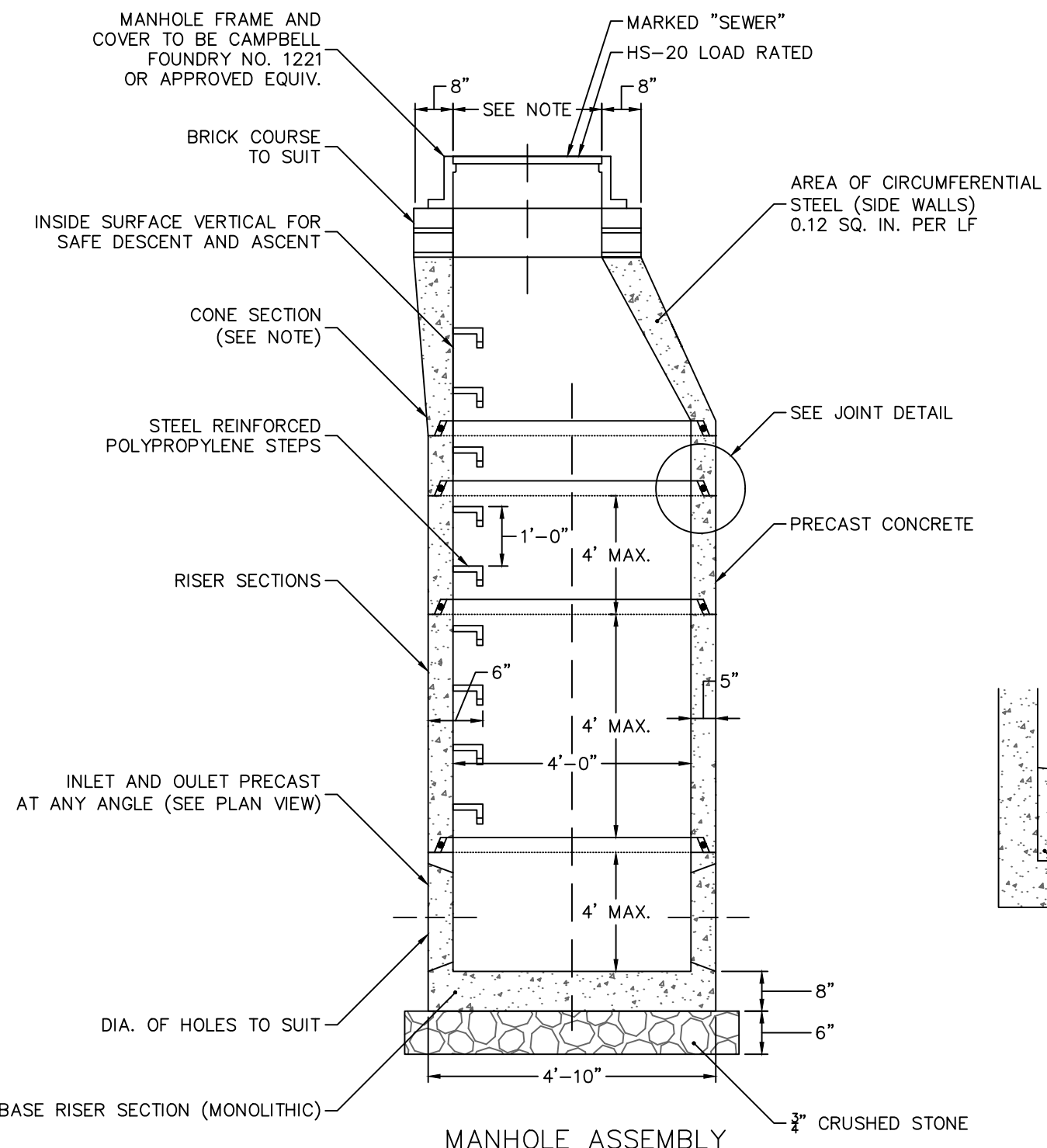
JOINT DETAIL

CONE DIMENSIONS	
DIA. OPENING	HEIGHT
24"	24" OR 36"
30"	36"

CONCRETE TO TEST 3000 P.S.I. AT 28 DAYS IN CONFORMANCE WITH ASTM C-478-68 MANHOLES SHALL HAVE PAVED INVERTS.

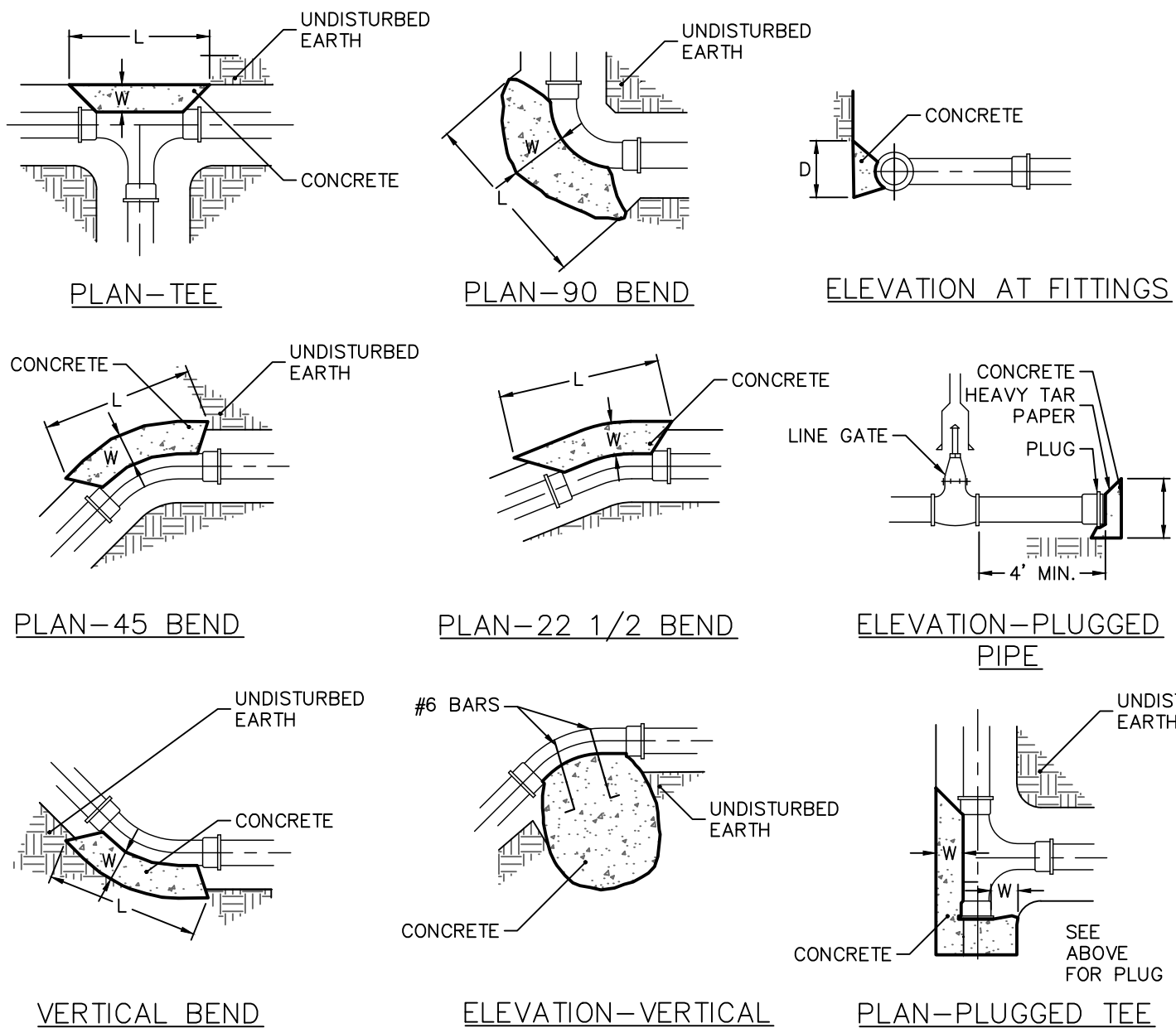


BENCH DETAIL



SANITARY MANHOLE

N.T.S.

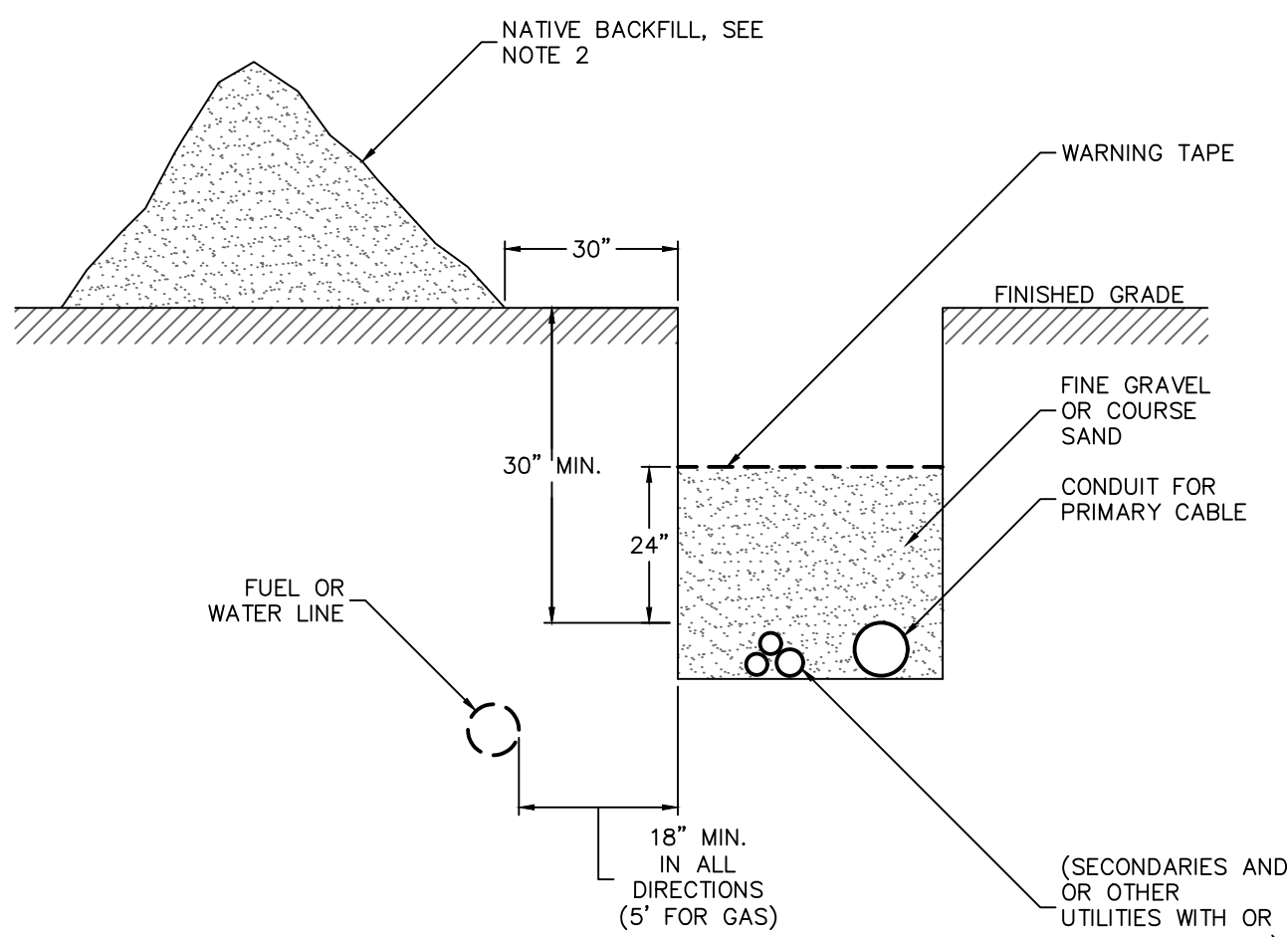


THRUST BLOCK SCHEDULE											
PIPE SIZE	TEE		22 1/2		45		90		W		
	L	D	L	D	L	D	L	D	L	D	W
6"	18"	15"	15"	12"	15"	12"	15"	15"	21"		
8"	2'	18"	18"	12"	18"	12"	2'	18"	2'		
12"	3'	2'	2'	12"	2'	12"	3'	2'	28"		
16"	4'	2.5'	2'	12"	2.33'	15"	4'	2.5'	31"		
20"	5.25'	3'	2'	18"	3'	2'	5.25'	3'	33"		
24"	7.5'	3'	3'	18"	4'	2.5'	7.5'	3'	3'		

BASIS:
2,000 LB./SQ.FT. SOIL
RESISTANCE 250 PSI WATER
PRESSURE CORRECTION FACTORS
FOR OTHER SOILS:
1. SOFT CLAY 4
2. SAND 2
3. SAND & GRAVEL 1.33
4. SHALE 0.4
NOTE:
1. IF SOFT MATERIALS ARE
ENCOUNTERED, THE THRUST
BLOCKS SIZES SHALL BE
ADJUSTED ACCORDINGLY.
2. CONCRETE TO BE 3000 PSI.

THRUST BLOCKS

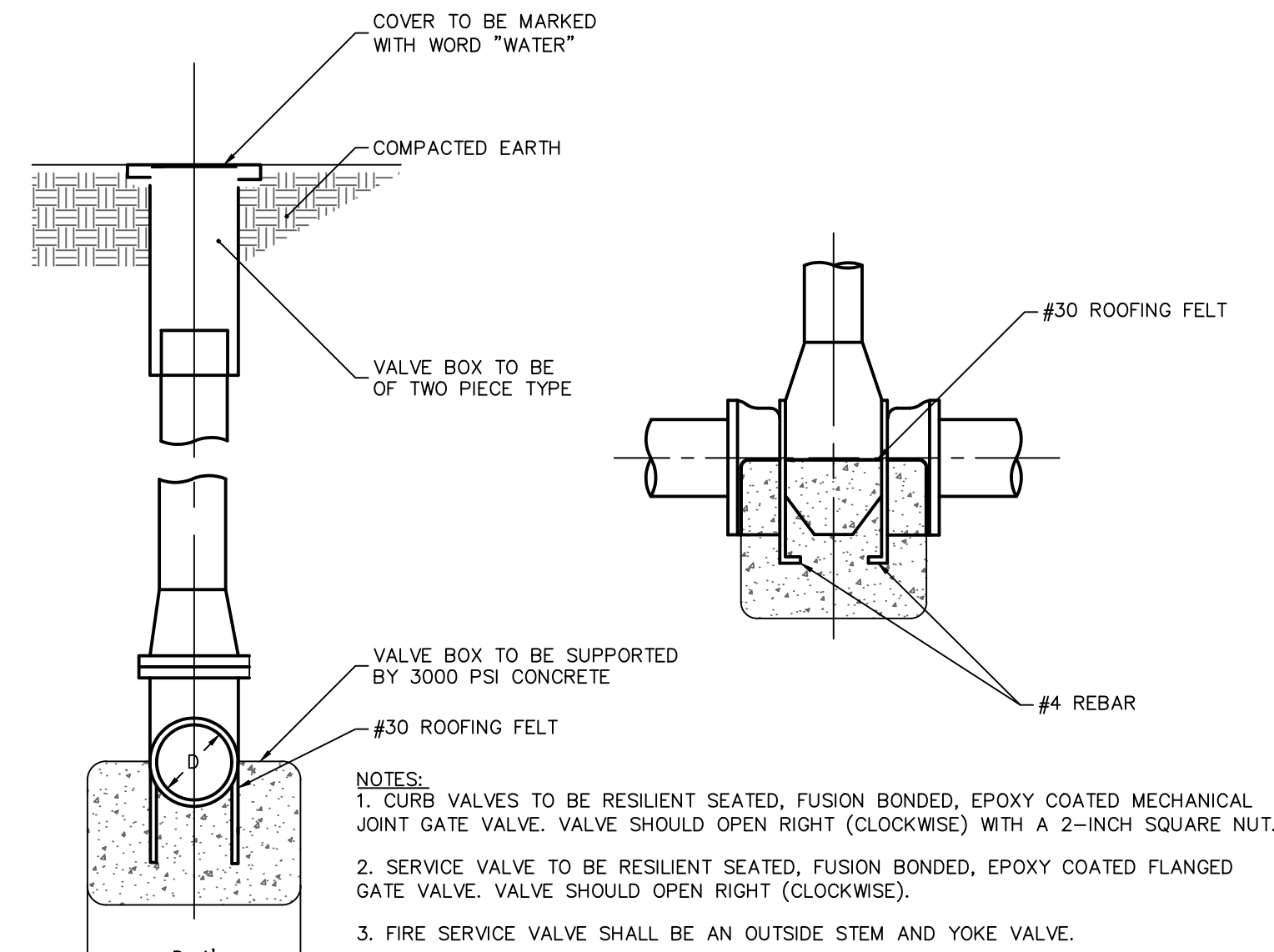
N.T.S.



NOTES:
1. ALL DIRECT-BURIED CABLES SHALL BE INSTALLED AT A DEPTH OF AT LEAST 30 INCHES IN THE FOLLOWING ORDER:
A. ENSURE THAT THE BOTTOM OF THE TRENCH IS WELL-TAMPED AND FREE OF ROCKS.
B. INSTALL THE CONDUIT, GLUING ALL COUPLINGS.
C. INSTALL SECONDARIES AND OTHER UTILITY CABLES OR CONDUITS LARGER THAN 2 INCHES IN MAXIMUM DIAMETER.
D. BACKFILL WITH 12 INCHES CLEAN FILL NOT TO CONTAIN STONES LARGER THAN 2 INCHES IN MAXIMUM DIAMETER.
E. INSTALL CABLE WARNING TAPE 12 INCHES OVER THE CONDUIT.
F. FILL IN THE REMAINDER OF THE TRENCH WITH NATIVE BACKFILL.
2. THE TRENCH SHALL BE BACKFILLED IMMEDIATELY FOLLOWING PLACEMENT OF THE CONDUIT.
3. 1/4-INCH NYLON ROPE AND PLASTIC CONDUIT PLUG TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.

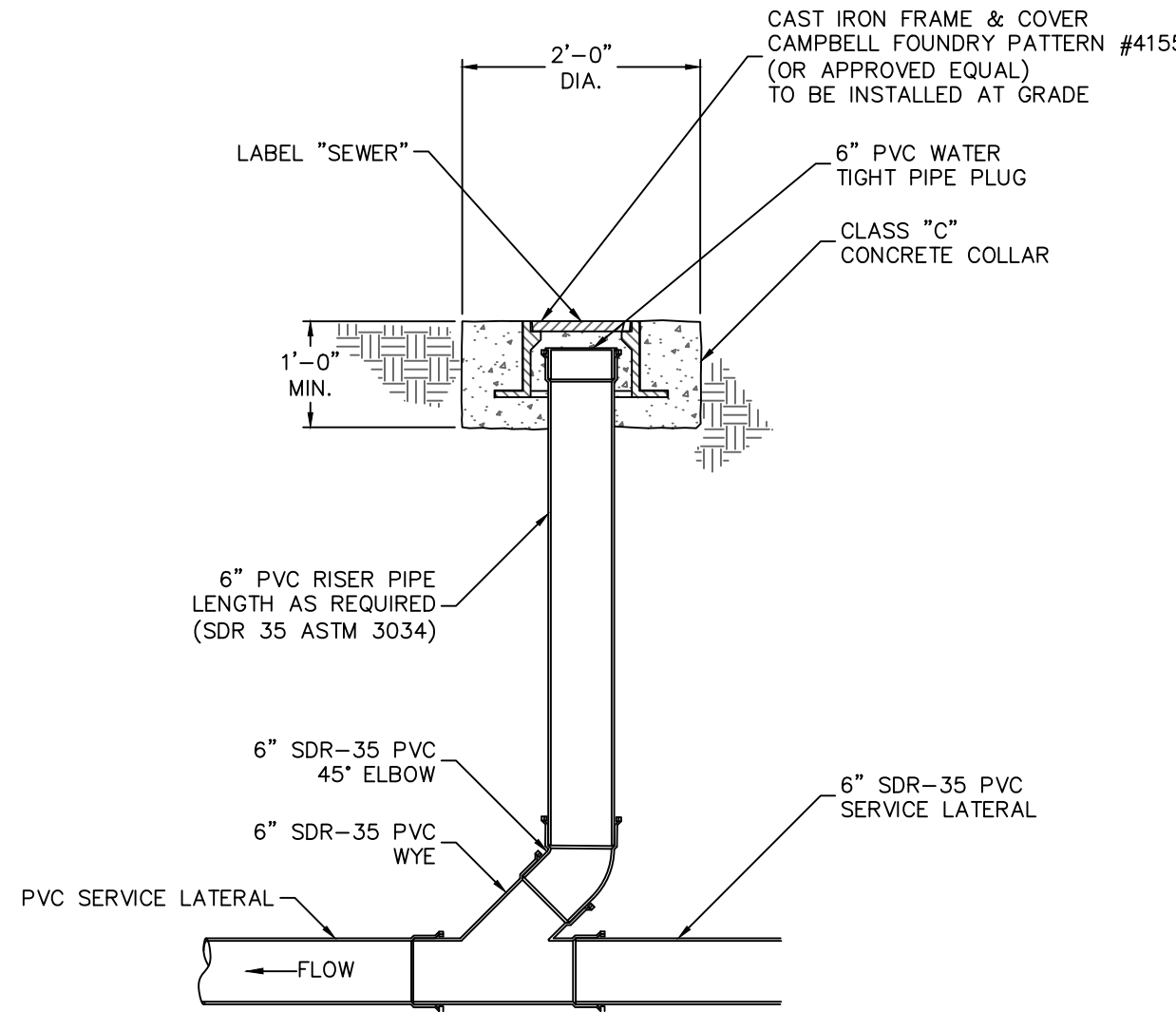
ELECTRICAL UTILITY TRENCH

N.T.S.



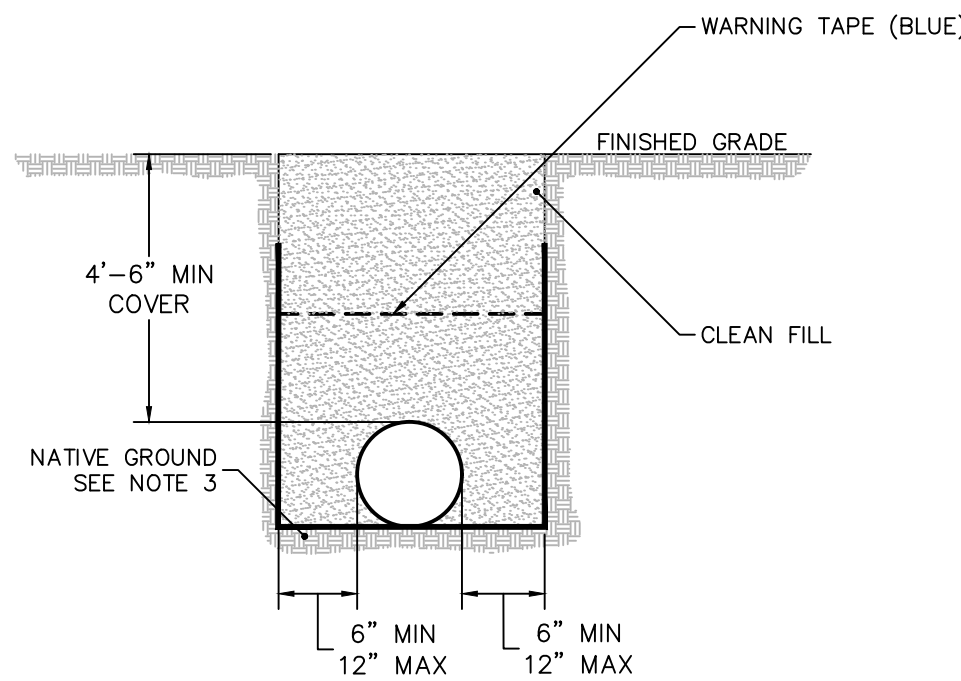
GATE VALVE

N.T.S.



SANITARY CLEANOUT

N.T.S.



WATER MAIN TRENCH

N.T.S.

Date	Description	No.
Revisions		
		
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Project MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT Drawing Title SITE UTILITY DETAILS		
Project No. 140324701	Drawing No. CU501	
Date 09/22/2025		
Drawn By JAD		
Checked By BP		
Sheet 10 of 16		

SOIL EROSION-SEDIMENT CONTROL NOTES

PROPOSED DEVELOPMENT

- CONSTRUCTION WILL INCLUDE EARTHWORK, CURBING, PAVING, UTILITY INSTALLATION, LANDSCAPING AND BUILDING CONSTRUCTION. ALL DEMOLITION DEBRIS AND SOIL REMOVAL RELATED TO CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL LAWS GOVERNING SUCH ACTIVITIES.
- THE DETAILED EROSION AND SEDIMENT CONTROL MEASURES ARE SHOWN ON DRAWING CG101. THE PROPOSED MEASURES HAVE BEEN DESIGNED TO PREVENT THE MIGRATION OF SOIL SEDIMENT FROM THE SITE.

SOIL EROSION AND SEDIMENT CONTROL NOTES

- THE SOIL AND SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IN ACCORDANCE WITH THE LOCAL GOVERNING AUTHORITY, THE CONNECTICUT EROSION AND SEDIMENT CONTROL GUIDELINES AND THE CONNECTICUT STORMWATER STANDARDS.
- EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO START OF DEMOLITION AND CONSTRUCTION AND DISTURBANCE OF SITE CONTRIBUTORY DRAINAGE AREAS. THE OWNER OR ITS CONTRACTOR SHALL INSPECT, REPAIR AND REMOVE ALL SEDIMENT AND EROSION CONTROL DEVICES, AS INDICATED HEREIN. ALL EARTH CHANGES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED IN SUCH A MANNER SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST POSSIBLE PERIOD OF TIME.
- DISPOSAL OF COLLECTED SEDIMENT SHALL BE MADE TO AREA DESIGNATED BY THE OWNER'S SOIL ENGINEER.
- FILTER FABRIC/SILT FENCE WILL BE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
- ALL TOPSOIL NOT TO BE USED FOR FINAL GRADING/LANDSCAPED AREAS SHALL BE REMOVED FROM THE SITE IMMEDIATELY, IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL LAW. ALL TOPSOIL TO BE USED IN LANDSCAPED AREAS SHALL BE STORED/STOCKPILED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL LAW STANDARDS.
- ALL AREAS WITHIN 500 FEET OF AN INHABITED DWELLING SHALL BE WETTED AS NECESSARY TO PROVIDE DUST CONTROL.
- PAVEMENT BASE COURSE MUST BE PLACED IN ALL NEW ROADWAY AREAS UPON COMPLETION OF FINE GRADING.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL PAVED ROADWAYS, ON AND OFF-SITE, WHICH MUST BE KEPT FREE OF SITE GENERATED SEDIMENT AT ALL TIMES. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHOD.
- ALL STORM DRAINAGE OUTLETS MUST BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
- SILT FENCES AND BARRIERS MUST BE CLEANED OR REPLACED PERIODICALLY TO REMOVE BUILT-UP SILT.
- SEDIMENT TRAPS MUST BE CLEANED WHEN CAPACITY HAS BEEN REDUCED BY AN AVERAGE OF 2'-0" OVER ITS TOTAL AREA OR TO 70% OF ITS DESIGN VOLUMES, WHICHEVER OCCURS FIRST.
- ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSPECTED ON A DAILY BASIS AND CLEANED IMMEDIATELY AFTER EACH STORM.
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR FROM THE EARTH CHANGE AREA SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.
- THE CONTRACTOR SHALL CORRECT ANY OMISSIONS, ERRORS, OR FIELD OPERATIONS IMMEDIATELY AND IN ACCORDANCE WITH THE GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
- ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.
- SOIL EROSION AND SEDIMENT CONTROLS MUST BE INSPECTED BY THE ZONING ENFORCEMENT OFFICER BEFORE WORK MAY COMMENCE.
- THE PROPERTY OWNER AND/OR HIS/HER AGENTS MUST MAINTAIN (REPAIR/REPLACE), WHEN NECESSARY, THE SILTATION CONTROL UNTIL ALL DEVELOPMENT ACTIVITY IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

TEMPORARY STABILIZATION

SEDIMENT DISPOSAL AREAS AND TOPSOIL STOCKPILES NOT SCHEDULED FOR CONSTRUCTION ACTIVITIES WITHIN THIRTY (30) DAYS OF DISTURBANCE SHALL BE STABILIZED AS FOLLOWS:

- SOIL AMENDMENTS AS NECESSARY.
- ANNUAL RYE GRASS SEEDING APPLIED AT A RATE OF NOT LESS THAN 1 LB. PER 1,000 SF.
- MULCH ALL NEWLY SEEDED AREAS WITHIN 80 LBS. OF SALT HAY OR SMALL GRAIN STRAW PER 1,000 SF.
- WHEN DISTURBED AREAS ARE SCHEDULED FOR IMMEDIATE LANDSCAPING THEY MAY BE MULCHED AND SEEDED PER ITEM C ABOVE.

PERMANENT STABILIZATION

REFER TO PLANTING PLANS & DETAILS FOR PERMANENT STABILIZATION METHODS + PROPOSED SEED MIXES.

- PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL DISTURBED LAND AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADING. MULCH AS NECESSARY FOR SEED PROTECTION AND ESTABLISHMENT. AMEND SOIL AS NEEDED PRIOR TO PERMANENT SEEDING. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER COMPLETION OF AN EARTH CHANGE OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. ALL DISTURBED AREAS, STOCKPILES OF FILL OR EXCAVATED MATERIAL SHALL BE STABILIZED IN SUCH A MANNER AS NOT TO CAUSE UNREASONABLE HAZARD TO PERSONS OR PROPERTY.
- MATERIALS SPECIFICATION: LAWN + MEADOW AREAS
 - ANY SOIL HAVING A pH OF FOUR OR LESS CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE INCHES OF SOIL HAVING A pH OF FIVE OR MORE PRIOR TO SEED BED PREPARATION.
- MULCHING SHALL BE DONE AT THE RATE OF SEVENTY TO NINETY POUNDS (70-90 LBS) PER 1,000 SQUARE FEET WITH UNROTTED SALT HAY.
- LIQUID MULCH BINDERS MUST BE USED TO ANCHOR SALT HAY, HAY OR STRAY MULCHES.
 - APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH IN VALLEYS AND AT CREATED BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
 - USE ONE OF THE FOLLOWING: SYNTHETIC OR ORGANIC BINDERS. BINDERS SUCH AS CURASOL DCA-70, PETRO SET, TERRA TACH, HYDRO MULCH AND AEROSPRAY MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER OF ANCHOR MULCH MATERIALS. BINDERS CONTAINING PETROLEUM PRODUCTS SHALL NOT BE USED.

NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE TO THE EXCLUSION OF OTHER PRODUCTS.

- FILL MATERIAL SHALL BE FREE FROM DEBRIS, PERISHABLE OR COMBUSTIBLE MATERIAL AND FROZEN OR WET EARTH OR STONES LARGER THAN THREE INCHES IN MAXIMUM DIMENSION.
- CONSTRUCTION AREAS SHALL BE PERIODICALLY SPRAYED WITH WATER UNTIL THE SURFACE IS WET TO CONTROL THE GENERATION OF DUST.
- ALL REVISIONS AFTER APPROVAL HAS BEEN GRANTED SHALL BE FORWARDED TO THE APPROPRIATE DISTRICT FOR REVIEW.
- THE LOCAL GOVERNING AUTHORITY SHALL RECEIVE WRITTEN NOTIFICATION SEVENTY TWO HOURS BEFORE THE START OF ANY CONSTRUCTION.
- SEEDBED PREPARATION:
 - TOPSOIL SHOULD BE A MINIMUM OF SIX INCHES DEEP (LIGHTLY COMPACTED) BEFORE SEEDING.
 - TOPSOIL SHALL BE TESTED PRIOR TO SEEDING.
 - WORK SOIL AMENDMENTS INTO SOIL AS NECESSARY AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE ALL CLAY OR SILTY SOIL AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEED BED WHEREVER FEASIBLE.
 - REMOVE FROM THE SURFACE ALL STONES ONE INCH OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLOUDS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
 - INSPECT SEED BED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT SOIL COMPACT, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

CONTINGENCY SOIL EROSION AND SEDIMENT CONTROL NARRATIVE

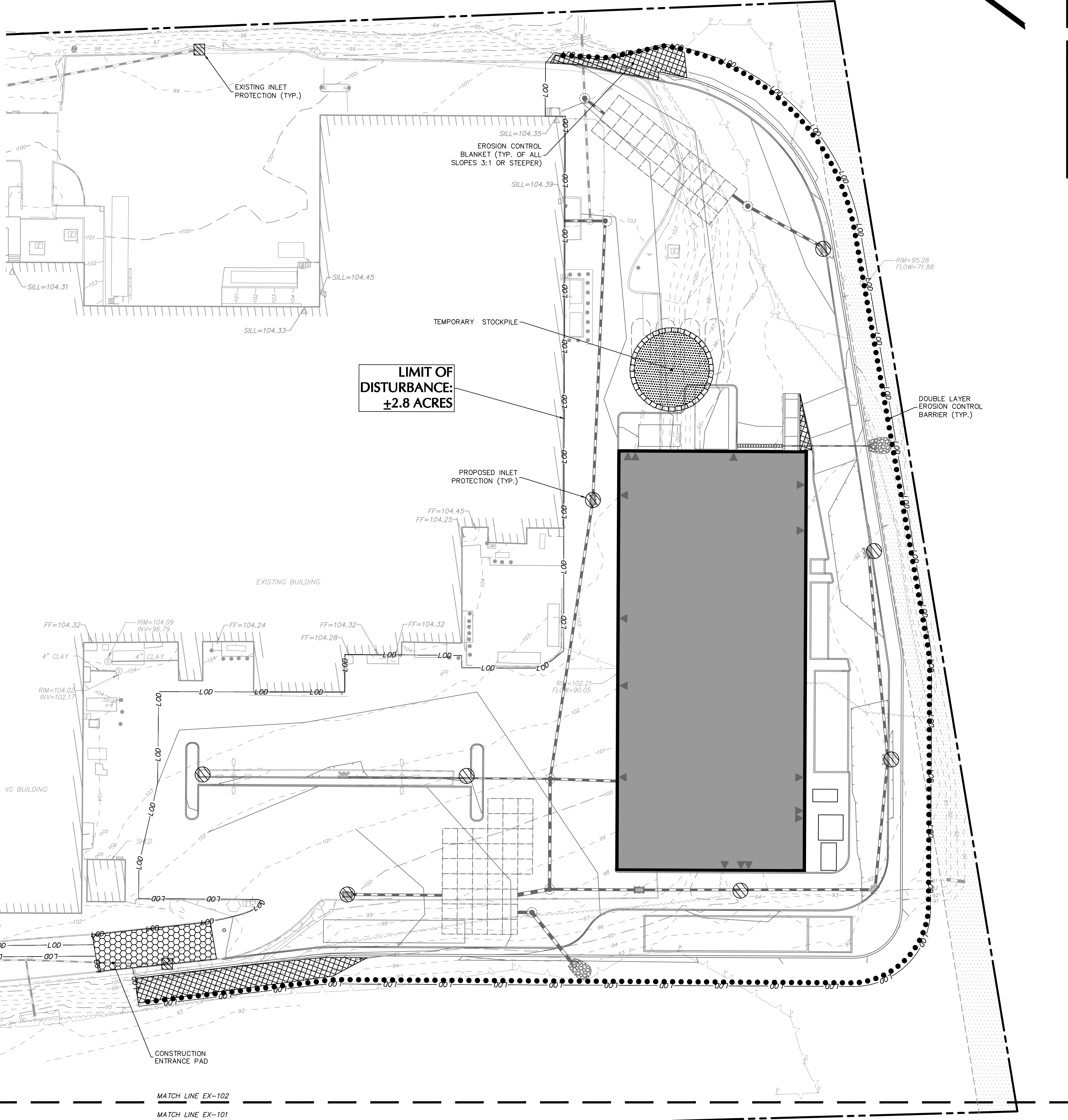
- THE GENERAL CONTRACTOR WILL DESIGNATE PERSONNEL FOR 24 HOUR EMERGENCY RESPONSE IN THE EVENT OF SEVERE WEATHER AND INCREASED POTENTIAL FOR SEVERE EROSION.
- THE GENERAL CONTRACTOR IS REQUIRED TO MAINTAIN ON SITE OR HAVE THE ABILITY TO RETRIEVE WITHIN 12 HOURS THE FOLLOWING MATERIALS IN THE EVENT THAT THERE ARE DEFICIENCIES IN THE SESC MEASURES:
 - 25% OF THE INSTALLED LENGTH OF SILT FENCE
 - EQUIVALENT TONNAGE OF STONE FOR STABILIZATION OF 2 STABILIZATION ENTRANCES. STONE COULD BE USED FOR SLOPE REPAIRS, ENERGY DISSIPATER ENHANCEMENTS, ETC.
 - HEAVY EQUIPMENT CAPABLE OF TRENCHING/EXCAVATING LARGE AREAS TO DIVERT AND CONTROL RUNOFF IN A CONTROLLED MANNER.
- HAVE DESIGNATED A HYDRO-SEED CONTRACTOR CAPABLE OF RESPONDING TO THE SITE WITHIN 12 HOURS
- ANY STUMP GRINDINGS OR WOOD CHIPS GENERATED ON-SITE SHOULD BE RETAINED FOR USE TO BACK UP SILT FENCES.

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY LANGAN, AND DATED 9 JULY 2021.
- SITE IMPROVEMENTS INCORPORATED INTO THE SURVEY TAKEN FROM A PLAN ENTITLED "SITE PLAN" PREPARED BY LANGAN, DATED 15 OCTOBER 2021.
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- PROPOSED BUILDING FOOTPRINT RECEIVED ELECTRONICALLY FROM ITAC CORPORATION DATED SEPTEMBER 2025.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
LIMIT OF DISTURBANCE LINE		
EXISTING INLET PROTECTION		
PROPOSED INLET PROTECTION		
CONSTRUCTION ENTRANCE		
SILT FENCE		



Date	Description	No.
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Revisions



LANGAN

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Project

**MACDERMID ALPHA
NEW PROCESS
BUILDING**

WEST HAVEN CONNECTICUT

Drawing Title

**SOIL EROSION &
SEDIMENT
CONTROL PLAN**

Project No. Drawing No.

140324701

Date

09/22/2025

Drawn By

JAD

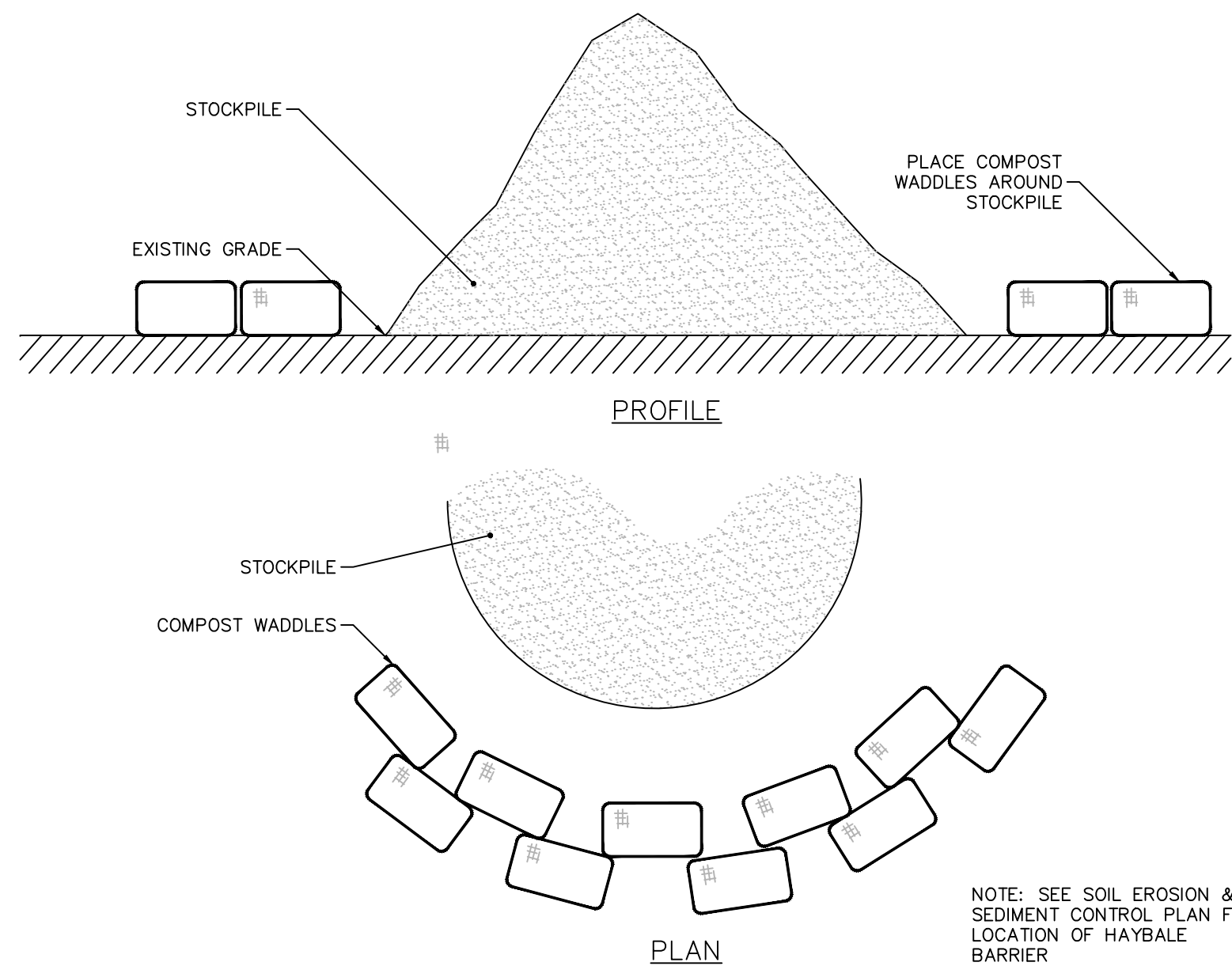
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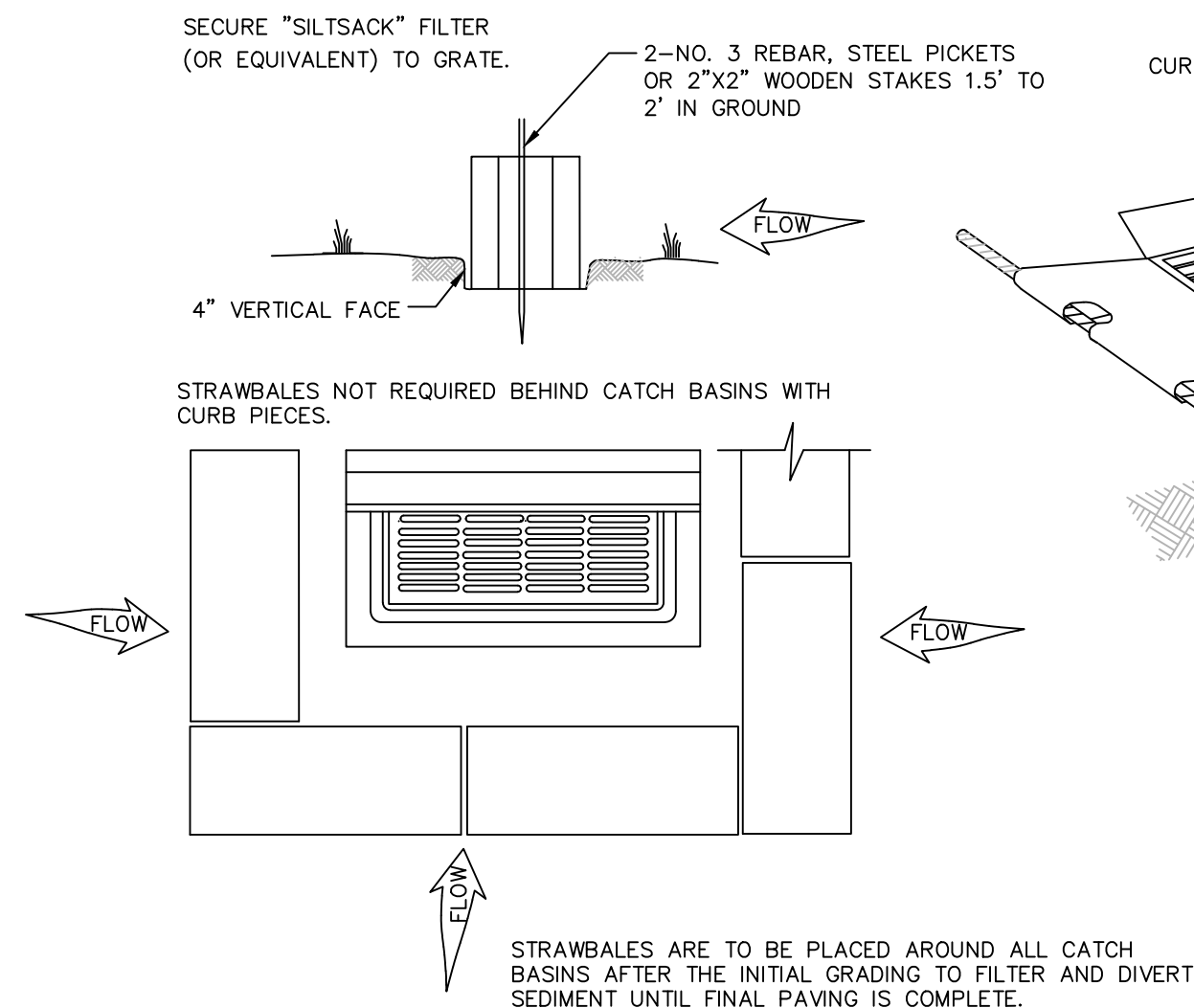
Sheet 11 of 16

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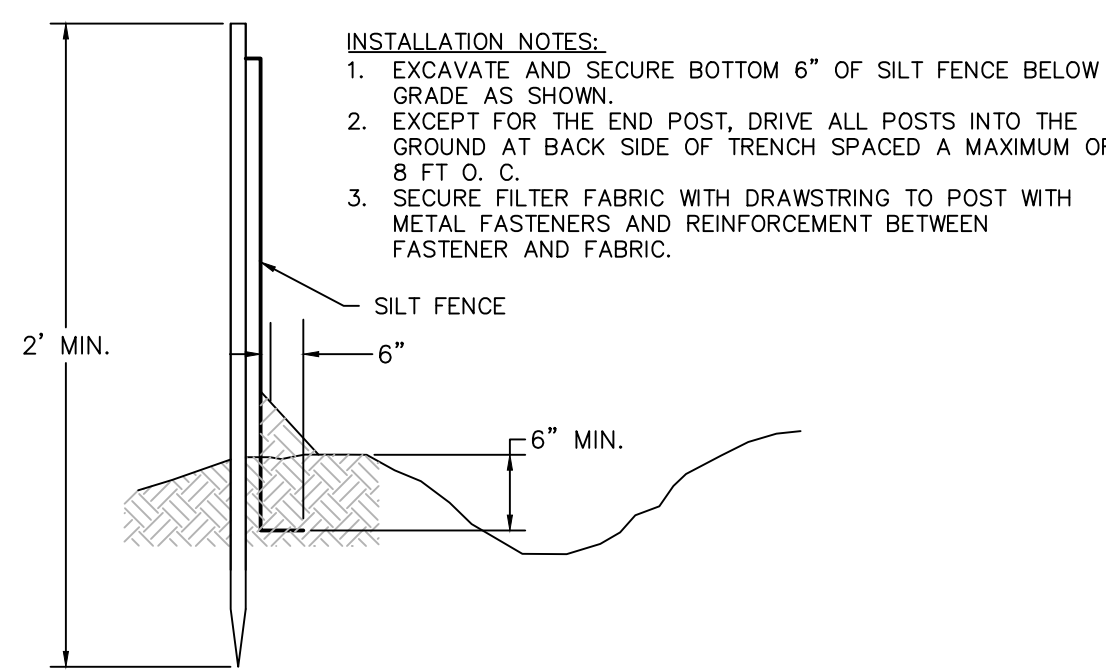
TEMPORARY STOCKPILE

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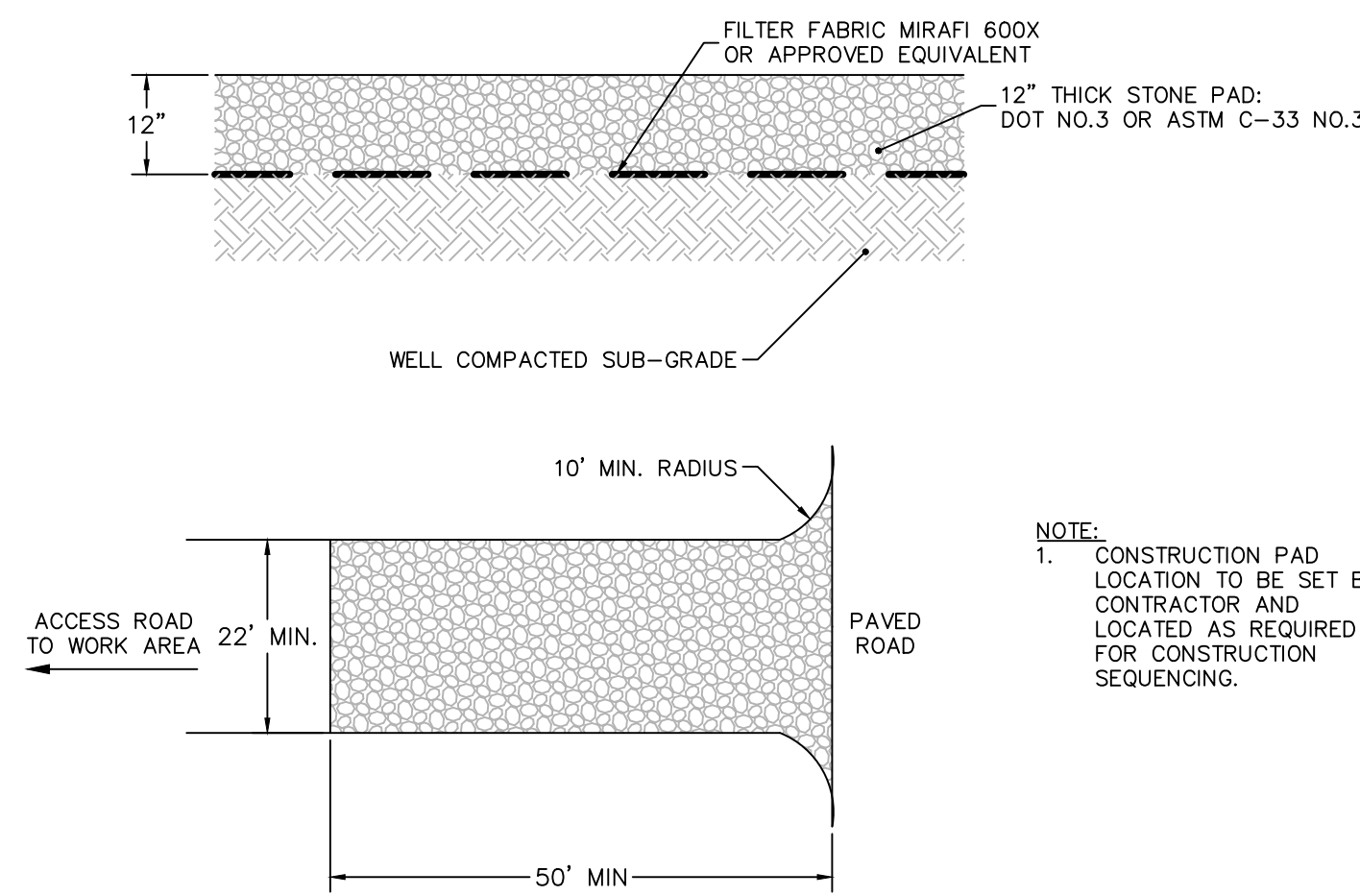
INLET PROTECTION

N.T.S.



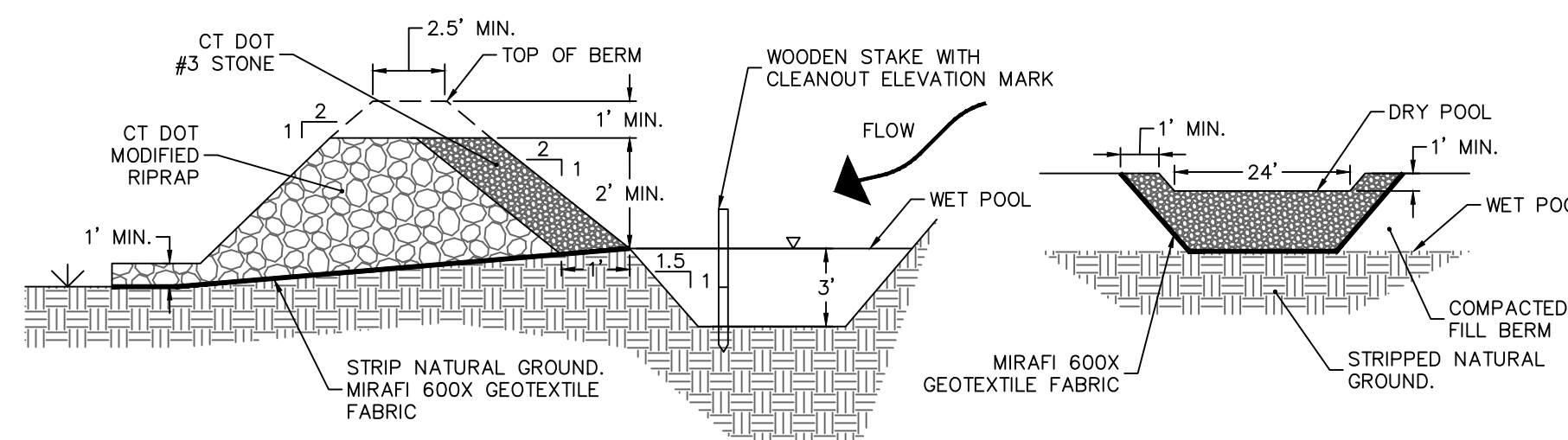
SILT FENCE

N.T.S.



CONSTRUCTION ENTRANCE

N.T.S.



PROFILE

CROSS SECTION

- NOTES:**
1. TEMPORARY SEDIMENT TRAPS SHALL BE INSTALLED IN DISTURBED AREAS WITH DRAINAGE AREAS LESS THAN 5 ACRES.
 2. TEMPORARY SEDIMENT TRAPS AND OVERFLOW WEIRS SHALL BE SIZED ACCORDING TO THE 2024 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL TO PROVIDE A MINIMUM OF 134 CUBIC YARDS OF STORAGE PER ACRE OF DRAINAGE AREA.
 3. OVERFLOW WEIR LENGTH TO BE A MINIMUM OF 24' LONG. CONTINUE RIPRAP AND GEOTEXTILE FABRIC UP SIDE OF OVERFLOW WEIR TO TOP OF BERM TO PREVENT BERM EROSION.
 4. SEDIMENT TRAPS SHALL BE MAINTAINED UNTIL FINAL STABILIZATION OF THE CONTRIBUTING AREA OR SECONDARY CONTROLS ARE INSTALLED.
 5. SEDIMENT TRAPS TO BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF A STORM. CLEANED OUT WHEN SEDIMENT ACCUMULATES TO HALF OF THE WET POOL DEPTH, AS MARKED WITH A WOODEN STAKE.

TEMPORARY SEDIMENTATION TRAP

N.T.S.



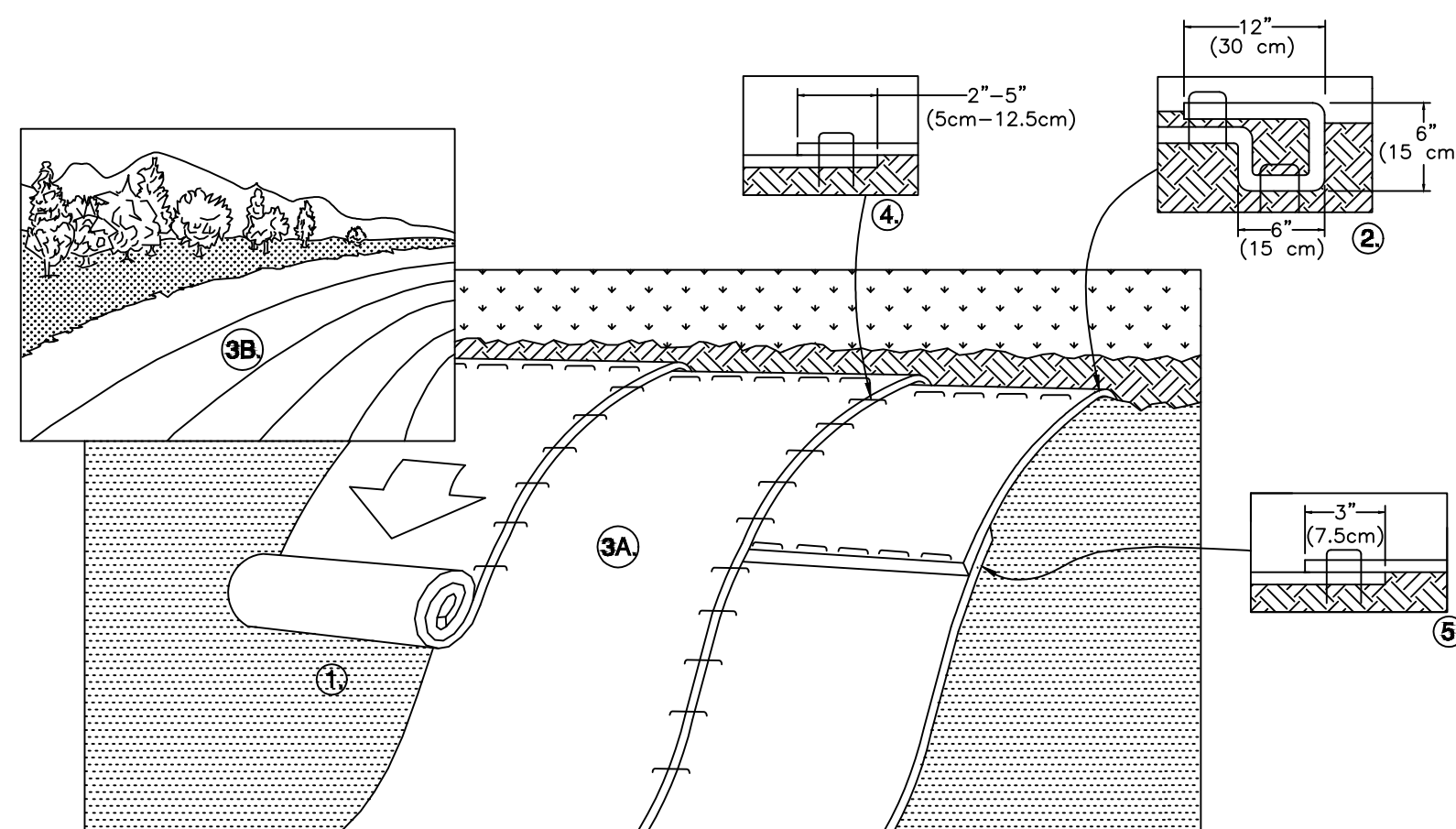
BIONET SC150BN DOUBLE NET STRAW BLANKET – BIODEGRADABLE (OR APPROVED EQUAL)

SLOPE INSTALLATION

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.

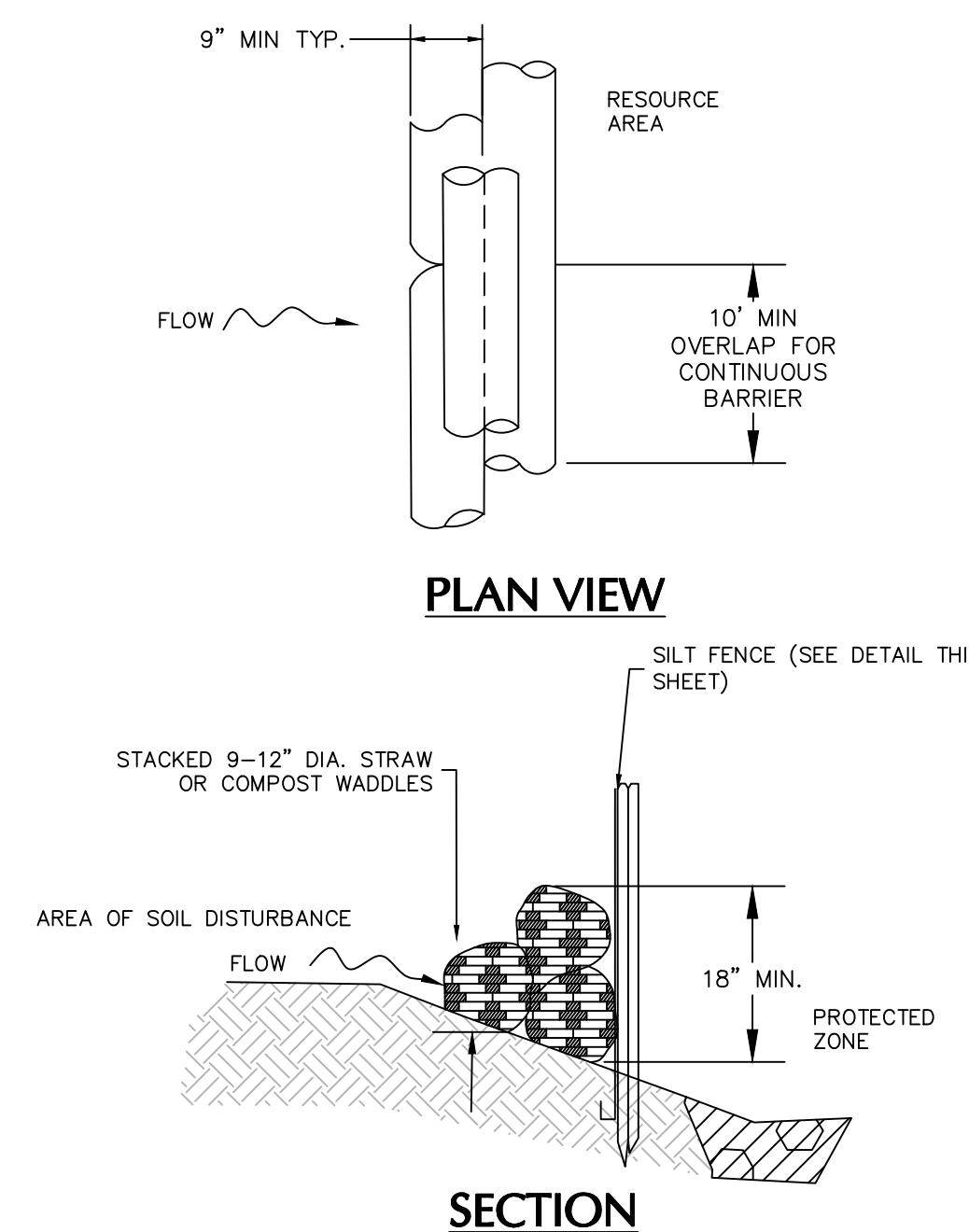
NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

NOTE:
CONTRACTOR TO PROVIDE EROSION CONTROL BLANKET ON ALL SLOPES 3:1 OR STEEPER.



SLOPE STABILIZATION (3:1 SLOPES AND STEEPER)

N.T.S.



- NOTES:**
1. STAKE A MIN. OF EVERY 5 FEET TO SECURE TUBE OR PER MANUFACTURERS INSTRUCTION
 2. WADDLES TO BE WRAPPED IN BURLAP COVERING

DOUBLE LAYER EROSION CONTROL BARRIER

N.T.S.

Date	Description	No.
Revisions		
		
LANGAN Langan CT, Inc. 555 Long Wharf Drive, 9th Floor New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project		
MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT		
Drawing Title		
SOIL EROSION & SEDIMENT CONTROL DETAILS		
Project No.	Drawing No.	
140324701	CE501	
Date		
09/22/2025		
Drawn By		
JAD		
Checked By		
BP		
Sheet 12 of 16		

SITE LIGHTING SCHEDULE

SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	COLOR TEMPERATURE	OPTICS	LUMENS	LLF	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.	REMARKS
	EX	-	-	-	EXISTING FIXTURE TO REMAIN	-	-	-	-	-	-	-	-	-	-	-	-
	A	2	COOPER LIGHTING SOLUTIONS	LUMARK PREVAIL COB SERIES	SINGLE POLE-MOUNTED FIXTURE; COLOR: BRONZE	20'-0"	96W LED	3000K	TYPE V	13,790	0.9	PRV-C25-730-D-UNV-T5-SA-BZ	COOPER LIGHTING SOLUTIONS	SQUARE STRAIGHT ALUMINUM COLOR: BRONZE	17'-0"	SSA-4-M-17W-C-1	POLE TO BE MOUNTED ON 3'-0" HEIGHT CONCRETE BASE
	B	2	COOPER LIGHTING SOLUTIONS	LUMARK PREVAIL COB SERIES	SINGLE POLE-MOUNTED FIXTURE; COLOR: BRONZE	20'-0"	96W LED	3000K	TYPE III W/HSS	11,758	0.9	PRV-C25-730-D-UNV-T3-SA-BZ-HSS	COOPER LIGHTING SOLUTIONS	SQUARE STRAIGHT ALUMINUM COLOR: BRONZE	17'-0"	SSA-4-M-17W-C-1	POLE TO BE MOUNTED ON 3'-0" HEIGHT CONCRETE BASE
	C	2	COOPER LIGHTING SOLUTIONS	LUMARK PREVAIL COB SERIES	SINGLE POLE-MOUNTED FIXTURE; COLOR: BRONZE	20'-0"	96W LED	3000K	TYPE IV W/HSS	11,717	0.9	PRV-C25-730-D-UNV-T4-SA-BZ-HSS	COOPER LIGHTING SOLUTIONS	SQUARE STRAIGHT ALUMINUM COLOR: BRONZE	17'-0"	SSA-4-M-17W-C-1	POLE TO BE MOUNTED ON 3'-0" HEIGHT CONCRETE BASE
	D	4	COOPER LIGHTING SOLUTIONS	LUMARK PREVAIL COB SERIES	WALL-MOUNTED FIXTURE; COLOR: BRONZE	20'-0"	96W LED	3000K	TYPE III	12,944	0.9	PRV-C25-730-D-UNV-T3-WM-BZ	-	-	-	-	-
	E	1	COOPER LIGHTING SOLUTIONS	LUMARK PREVAIL COB SERIES	WALL-MOUNTED FIXTURE; COLOR: BRONZE	20'-0"	96W LED	3000K	TYPE IV	12,901	0.9	PRV-C25-730-D-UNV-T4-WM-BZ	-	-	-	-	-

NOTES:
1. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES

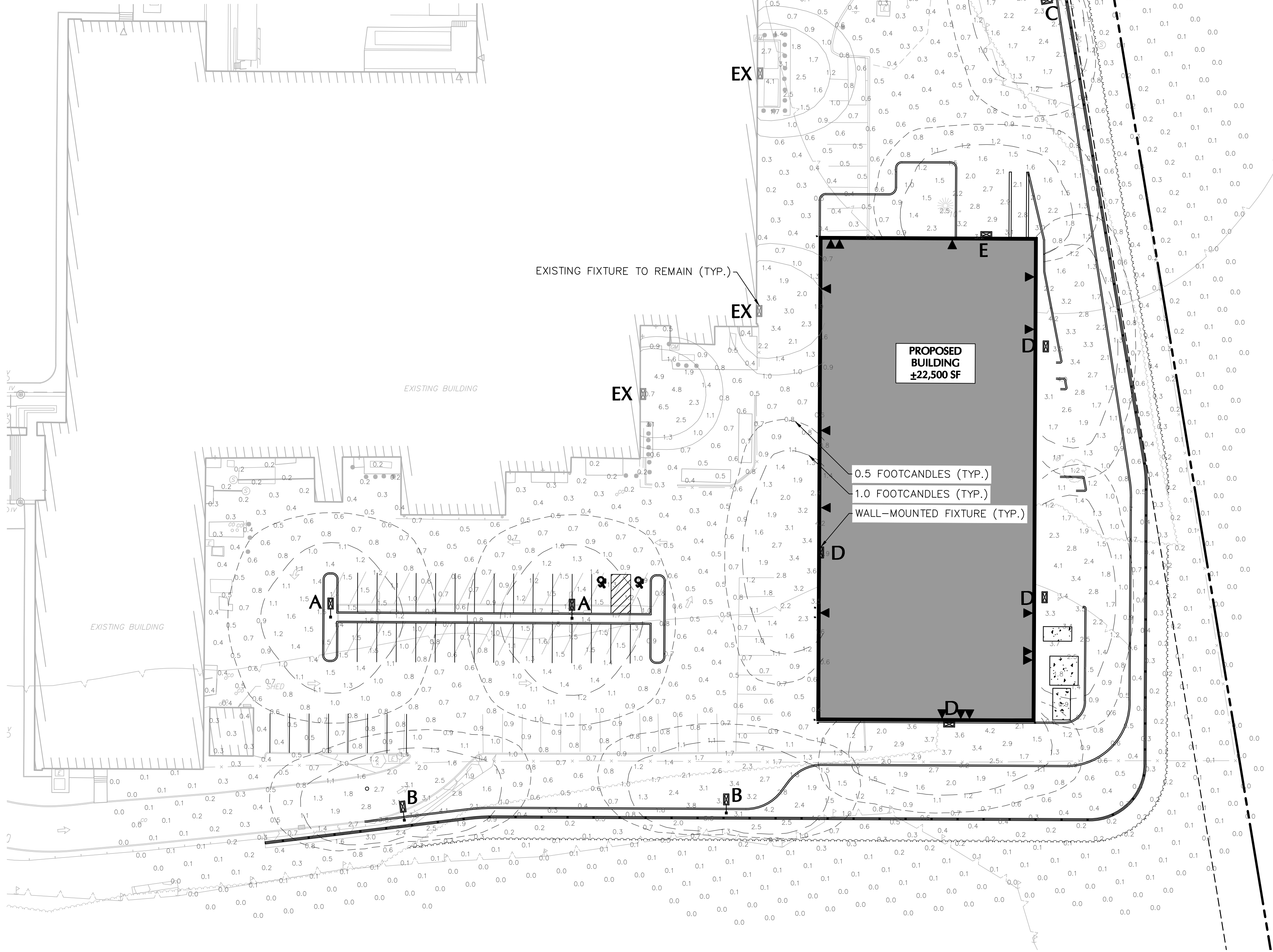
STATISTICS

DESCRIPTION	AVG.	MAX.	MIN.	MAX./MIN.	AVG./MIN.
BACK OF PROPOSED BUILDING	1.7fc	4.2fc	0.4fc	10.5:1	4.3:1
PARKING	1.0fc	4.2fc	0.2fc	21.0:1	5.3:1
TRUCK TURNAROUND	1.2fc	4.1fc	0.2fc	20.5:1	5.8:1

NOTE: LIGHT PHOTOMETRY AND CALCULATIONS FOR ADJACENT STREET AND SITE LIGHTING ARE NOT INCLUDED IN THE ABOVE STATISTICS.

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY LANGAN, AND DATED 9 JULY 2021.
- SITE IMPROVEMENTS INCORPORATED INTO THE SURVEY TAKEN FROM A PLAN ENTITLED "SITE PLAN" PREPARED BY LANGAN, DATED 15 OCTOBER 2021.
- THE SITE IS LOCATED IN ZONE X, AN AREA OF MINIMAL FLOODING PER FIRM MAP 09009C0438H, EFFECTIVE DECEMBER 17, 2010.
- PROPOSED BUILDING FOOTPRINT RECEIVED ELECTRONICALLY FROM ITAC CORPORATION DATED SEPTEMBER 2025.



Date	Description	No.
Revisions		
		
LANGAN		
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Project		
MACDERMID ALPHA NEW PROCESS BUILDING		
WEST HAVEN CONNECTICUT		
Drawing Title		
SITE LIGHTING PLAN		
Project No. 140324701		Drawing No. LL101
Date 09/22/2025		
Drawn By AC		
Checked By JA		
Sheet 13 of 16		

30 0 15 30
SCALE: 1 INCH = 30 FEET

ENVIRONMENTAL NOTES - WETLAND PROTECTION MEASURES

LAND MITIGATION GOALS

- PROPOSED WETLAND AND BUFFER ENHANCEMENT AREA

- HERBICIDE USE NOTES

1. ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING HERBICIDE USE, APPLICATOR PERMIT AND POSTING REQUIREMENTS SHALL BE FOLLOWED.
2. ALL HERBICIDE APPLICATIONS SHALL BE PERFORMED BY A STATE LICENSED INDIVIDUAL UNDER THE SUPERVISION OF THE PROJECT WETLAND PROFESSIONAL.
3. CERTIFICATIONS, LICENSES AND PERMITS SHALL BE PROVIDED BY THE LICENSED APPLICATOR PRIOR TO THE START OF WORK.
4. ALL HERBICIDES TO BE MIXED WITH A DYE APPROVED BY U.S. EPA FOR USE AS HERBICIDE ADJUVANTS, SUCH AS TURKMARBOYE OR EQUIVALENT.
5. ONLY NONPERSISTENT HERBICIDES SHALL BE ADDED TO THE SPECIFIED HERBICIDES.
6. INVASIVE, WOODY SHRUBS AND VINES LOCATED WITHIN THE WETLAND AND BUFFER ENHANCEMENT AREA SHALL BE TREATED WITH A CUT-STUMP TREATMENT METHOD. SHRUBS AND VINES SHALL BE CUT NEAR THE STUMP LEVEL AND STUMPS SHALL RECEIVE A HERBICIDE APPLICATION. HERBICIDES SHALL BE APPLIED TO THE CUT SURFACE OF THE STUMP USING A HAND APPLICATOR METHOD (PAINT BRUSH, SPONGE, OR EQUIVALENT) OR LOW VOLUME HAND SPRAYER WITHIN ONE HOUR OF CUTTING.

MITIGATION MONITORING SUCCESS STANDARDS AND REPORTING

1. THE WETLAND AND BUFFER ENHANCEMENT AREAS WILL BE ASSESSED USING THREE SUCCESS STANDARDS AS DESCRIBED BELOW. SUCCESS STANDARD 1: ANY SOILS DISTURBED BY ENHANCEMENT ACTIVITIES ARE STABILIZED AND NO SIGNIFICANT EROSION OR SOIL LOSS OCCURS. SUCCESS STANDARD 2: THE WETLAND VEGETATION IS RECOVERING AND WETLAND CHARACTERISTICS ARE ESTABLISHED. NATIVE PHYTOPTYPES, INCLUDING 50% AERIAL COVER BY NATIVE WETLAND SHRUBS AND 75% HERBACEOUS SPECIES. CONTROL OF NON-NATIVE INVASIVE WOODY SHRUB SPECIES WITH LESS THAN 10% TOTAL AERIAL COVERAGE BY THE END OF THE MONITORING PERIOD.
2. A REPORT WILL BE PREPARED DOCUMENTING IMPLEMENTATION OF THE WETLAND MITIGATION PLAN, INCLUDING WOODY INVASIVE PLANT TREATMENT AND NATIVE PLANTING ACTIVITIES.
3. MONITORING OF THE WETLAND MITIGATION AREA WILL BE PERFORMED FOR PERIOD OF THREE YEARS STARTING THE FIRST FULL GROWING SEASON FOLLOWING COMPLETION OF THE TARGETED INVASIVE PLANT TREATMENT AND NATIVE PLANTING ACTIVITIES.
4. MONITORING WILL BE CONDUCTED EACH YEAR FOR THE ENTIRE MONITORING PERIOD. MONITORING WILL BE CONDUCTED IN FALL, AN ANNUAL MONITORING REPORT WILL PROVIDE AN ASSESSMENT OF THE CONDITIONS OF THE MITIGATION AREA, MEASURING SUCCESS AGAINST THE THREE SUCCESS STANDARDS. THE MONITORING REPORT WILL INCLUDE REPRESENTATIVE PHOTOGRAPHS OF THE RECOVERING WETLAND VEGETATION. THE REPORT WILL ALSO DOCUMENT CORRECTIVE ACTIONS TAKEN TO ADDRESS NON-COMPLIANCE WITH ANY WILDLIFE OBSERVATIONS. THE REPORT WILL ALSO DOCUMENT CORRECTIVE ACTIONS TAKEN TO ADDRESS NON-COMPLIANCE WITH THE SUCCESS STANDARDS, IF FOLLOWING COMPLETION OF THIS THREE-YEAR MONITORING PERIOD NOT ALL OF THE SUCCESS STANDARDS ARE MET, RECOMMENDATIONS FOR ADDITIONAL MONITORING/CORRECTIVE ACTIONS WILL BE INCLUDED IN THE FINAL MONITORING REPORT.

NOTES:

1. PLANTING STOCK USED IN THE ENHANCEMENT AREAS SHALL BE INSPECTED FOR PESTS, DISEASE AND OVERALL HEALTH TO ENSURE SUITABLE SPECIMENS ARE USED. UNSUITABLE SPECIMENS WILL BE REJECTED AND REPLACED WITH SUITABLE SPECIMENS. ANY PLANTING SUBSTITUTIONS MUST BE APPROVED BY THE PROJECT WETLAND SCIENTIST. ALL WOODY PLANT STOCK SHALL BE CONTAINER-GROWN OR BURLAP BALLED. DEVIATIONS TO THE PLANTING PLAN MUST BE APPROVED BY THE PROJECT WETLAND SCIENTIST. ONLY PLANT MATERIALS NATIVE AND INDIGENOUS TO CONNECTICUT SHALL BE USED. INVASIVE PLANT SPECIES WILL NOT BE USED IN THE MITIGATION AREA.
2. AREAS OF DISTURBED SOIL SHALL BE SOWN AS FOLLOWS: FOR WETLAND AREAS USE NEW ENGLAND WETMIX SEED MIX (NEW ENGLAND WETLAND PLANTS, INC. (413) 548-8000, OR APPROVED EQUIVALENT); FOR SUNNY UPLAND AREAS USE NEW ENGLAND WETMIX SEED MIX (NEW ENGLAND WETLAND PLANTS, INC. (413) 548-8000, OR APPROVED EQUIVALENT). ALL SEED MIX SHALL BE APPLIED AT THE MANUFACTURER'S RECOMMENDED SEEDING RATE AND PROTECTED WITH A WEED-FREE STRAW MULCH OR HYDROSEEDING WITH A BONDED FIBER MATRIX, AS DEEMED NECESSARY BY THE PROJECT WETLAND SCIENTIST.
3. ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE. NO CULTIVARS OF THE NATIVE PLANTS IDENTIFIED IN THE PLANTING SCHEDULE SHALL BE USED UNLESS APPROVED BY THE PROJECT WETLAND SCIENTIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CAREFUL INSTALLATION, MAINTENANCE (INCLUDING WATERING), AND ESTABLISHMENT OF THE PLANT MATERIAL.
4. IN ADDITION TO THE PLANTING SCHEDULE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IDENTIFICATION AND REMOVAL OF ALL INVASIVE PLANT SPECIES. THE INTENT OF THE NATIVE PLANT SPECINGS IS TO PROVIDE NATURAL GROUPINGS OF NATIVE WOODY TREES AND SHRUB PLANTS INTERSPERSED WITH NATIVE MEADOW HABITAT WITHIN THE BUFFER ENHANCEMENT AREA. PLANTING OF NATIVE UNDERSTORY WETLAND SHRUBS THAT WILL OCCUR WITHIN WETLANDS WILL OCCUPY AREAS VACATED BY REMOVAL OF INVASIVE SHRUBS.

LEGEND

[illegible]

Revisions

Revisions



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Project

MACDERMID ALPHA
NEW PROCESS
BUILDING

WEST HAVEN CONNECTICUT

Drawing Title

WETLAND MITIGATION AND REGULATED ACTIVITIES PLAN

Project No.	Drawing No.
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140324701

Date _____

09/22

Drawn By

BT

Checked By

IP101

LETTER